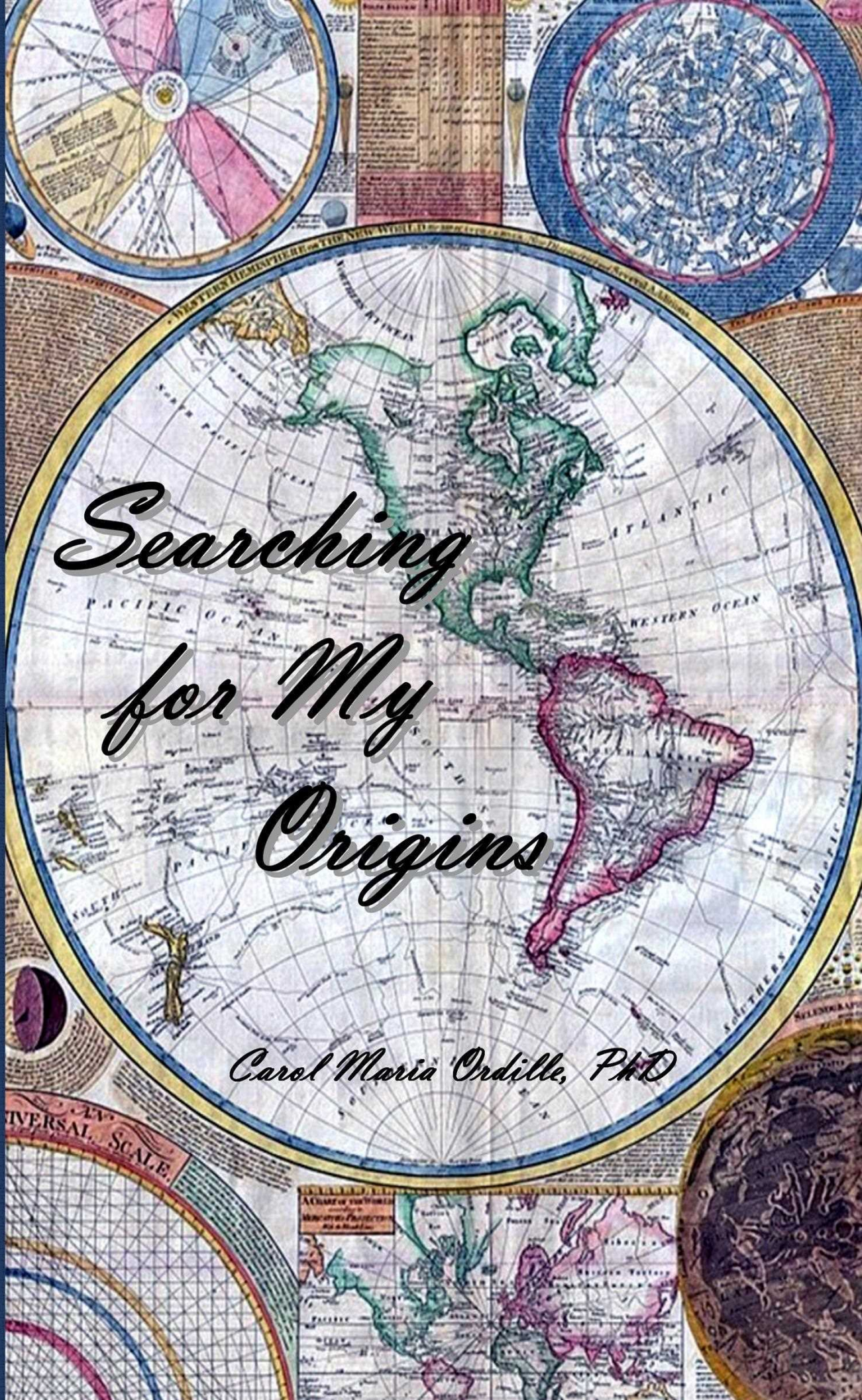
Searching
for My
Origins
Carol Maria Ordille, PhD

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Searching for My Origins
By Carol Maria Ordille, PhD

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In Loving Memory of My Parents

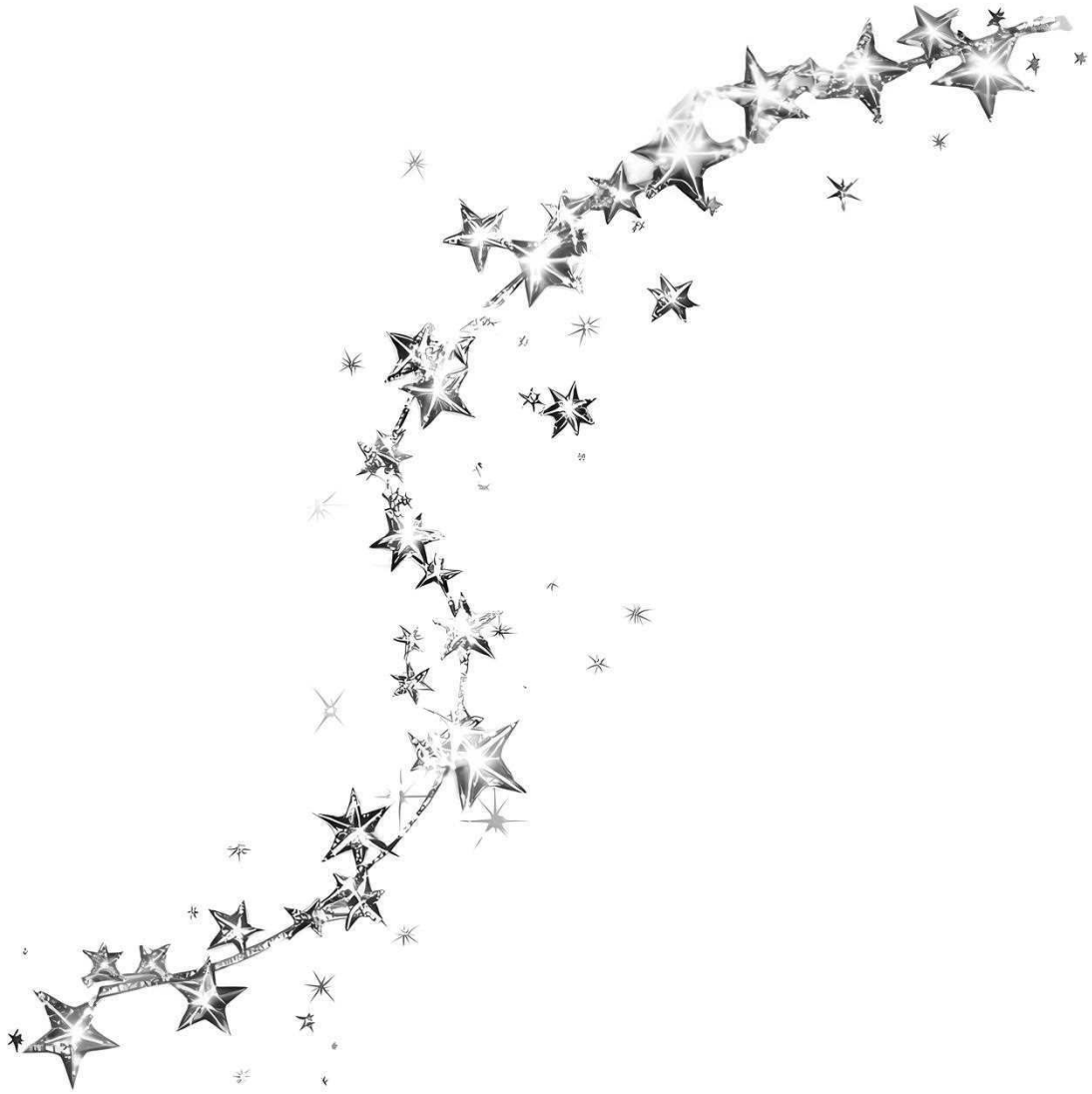
Salvatore "William" Ordille (27 August 1911 – 14 June 2011)

And

Maria "Mary" Manera (19 September 1916 - 28 February 1999)

"Parents give us roots to grow and wings to fly."

"Thank you for always believing in me."



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Paternal Ancestral Chart

FIVE GENERATIONS from the mid 1700's to 1911

1 2 3 4 5

Salvatore "William" Ordille

….. **Francesco Ordille**

……. **Antonius Ordile**

……. **Francesco Ordile**

…… **Giuseppe Ordile**

…… **Felice Campanella**

……. **Domenica Berenato**

…… **Vittorino Berenato**

…… **Maria Ordile**

…… **Antonia Pagano**

……. **Angelo Pagano**

…… **Francesco Pagano**

…… **Antonia Macri**

……. **Angela Brancato**

…… **Antonio Brancato**

…… **Concetta Giacobbe**

….. **Caterina DePietro**

……. **Pasquale DePietro**

……. **Matteo DiPietro**

…… DiPietro

…… (Unknown)

……. **Caterina Giacoppo**

…… **Domenico Giacoppo**

…… **Giuseppa LaRosa**

……. **Nataliza Angemi**

……. **Stefano Angemi**

…… **Francesco Angemi**

…… **Maria Carbone**

……. **Giuseppa Tomasello**

…… **Domenico Tomasello**

…… **Stefana Celesti**

Maternal Ancestral Chart

EIGHT GENERATIONS from the 1700's to 1915

1 2 3 4 5 6 7 8

Maria "Mary" Manera
..... **Calogero Manera**
..... **Salvatore Manera**
..... **Maestro Giuseppe Manera**
..... **Rosario Manera**
- ..... **Antonino Manera**
..... **Perina Germania Pruiti**
..... **Maria D'Agostino**
..... **Nicola D'Agostino**
..... **Domenica**
..... **Sebastiana Conti Nibali**
..... **Rosario Conti Nibali**
..... **Carmela Triscari**
..... **Maria Crasti Pidarello**
..... **Filippo Crasti Pidarello**
..... **Antonino Crasti Pidarello**
..... **Sebastiana Calamungi Manitta**
..... **Maestro Gaetano Calamungi Manitta**
..... **Rosaria Galanti Rando**
..... **Carmela Russo Madone**
..... **Giuseppe Russo Madone**
..... **Antonino Russo Madone**
....., ... **Angelica Pitrunaci**
..... **Maria Galanti**

..... **Carolina Biafore**
..... **Luigi Biafore**
..... **Francesco Biafore**
..... **Michaele Biafore**
..... **Francesco Biafore**
..... **Giuseppe Biafore**
..... **Caterina Locanto**
..... **Caterina Biafore**
..... **Marianna Boccaccio**
..... **Carmine Boccaccio**
..... **Pasquale Boccaccio**
..... **Rosa Cocco**
..... **Angela Bianco**
..... **Carolina Cipparrone**
..... **Francesco Cipparrone**
..... **Caterina DeMarco**
..... **Luisa Tarsitano**
..... **Antonio Tarsitano**
..... **Nicolo Francesco Tarsitano**
..... **Pasquale Tarsitano**
..... **Francesco Tarsitano**
..... **Bruno Tarsitano**
..... **Serafina Coco**
..... **Gaetana Scaglione**
..... **Saverina Quintieri**
..... **Maria Rosa Rota**
..... **Rosa Luise**
..... **Vincenzo Luise**
..... **Nicola Liuse**
..... **Rosa Caputo**
..... **Maria Biafore**
..... **Filippo Biafore**
..... . **Paolo Biafore**
..... . **Teresa Coco**
..... **Teresa Lopez**
..... . **Paolo Lopez**
..... . **Victoria Biafore**

Preface

My genealogical research has been extensive. I've grown my family tree to at most eight to nine ancestral generations and for each generation have added branches for siblings and their descendants. While everyone was from Sicily and Southern Italy, along the way there were hints as to their ancestral origins.

I turned to DNA analysis to either confirm or disprove my intuition. I eventually chose three companies: GPS Origins, CRI Genetics, and Family Tree DNA. Each has a different and unique approach. While some results were surprising and others fell short of expectations, my goal was to reach a consensus gene pool distribution for each of my parents.

And to that extent, the journey was not disappointing. I will take you along with me on this adventure.

Carol Maria Ordille, PhD

UNDERSTANDING GENETICS

BASICS

What is DNA?

DNA is the bearer of our genetic information which is passed down from generation to generation. Every cell in our body, with the exception of red blood cells, contains a copy of our DNA. Deoxyribonucleic acid (DNA) is the chemical compound that contains the instructions needed to develop and direct the activities of nearly all living organisms. DNA molecules are made of two twisting, paired strands, often referred to as a double helix.

Each DNA strand consists of four chemical units, called nucleotide bases, which comprise the genetic "alphabet." The bases are adenine (A), thymine (T), guanine (G), and cytosine (C). Bases on opposite strands pair specifically: an A always pairs with a T; a C always pairs with a G. The order of the As, Ts, Cs and Gs determines the meaning of the information encoded in that part of the DNA molecule just as the order of letters determines the meaning of a word.

What is a genome?

An organism's complete set of DNA is called its genome. Virtually every single cell in the body contains a complete copy of the approximately 3 billion DNA base pairs, or letters, that make up the human genome. With its four-letter language, DNA contains the information needed to build the entire human body. A gene traditionally refers to the unit of DNA that carries the instructions for making a specific protein or set of proteins. Each of the estimated 20,000 to 25,000 genes in the human genome contains codes for an average of three proteins.

Everyone has 23 pairs of chromosomes. One of each pair was received from the father and one from the mother. These 23 pairs of chromosomes are know as nuclear DNA since they are found in the nucleus of every cell in our body. The 23rd chromosome is known as the sex chromosome. The 23rd chromosome from the mother is always an X. From the father a person inherits either an X or Y chromosome. The chromosome from the father determines the sex of the offspring. An XX combination is female and an XY combination is male.

Located on the 23 pairs of chromosomes, genes direct the production of proteins with the assistance of enzymes and messenger molecules. Specifically, an enzyme copies the information in a gene's DNA into a molecule called messenger ribonucleic acid (mRNA). The mRNA travels out of the nucleus and into the cell's cytoplasm, where the mRNA is read by a tiny molecular machine called a ribosome, and the information is used to link together small molecules called amino acids in the right order to form a specific protein. Proteins make up body structures like organs and tissue, as well as control chemical reactions and carry signals between cells.

What is DNA Sequencing?

Sequencing simply means determining the exact order of the bases in a strand of DNA. Because bases exist as pairs, and the identity of one of the bases in the pair determines the other member of the pair, researchers do not have to report both bases of the pair.

To assemble the sequence of all the bases in a large piece of DNA such as a gene, researchers need to read the sequence of overlapping segments. This allows the longer sequence to be assembled from shorter pieces, somewhat like putting together a linear jigsaw puzzle. In this process, each base has to be read not just once, but at least several times in the overlapping segments to ensure accuracy.

Researchers can use DNA sequencing to search for genetic variations and/or mutations that may play a role in the development or progression of a disease.

ANCESTRY

Mitochondrial DNA

We inherit mitochondrial DNA, or mtDNA, from our mother and none from our father. Mitochondrial DNA is located outside the nucleus of the cell. Since only females pass on their mtDNA, mtDNA testing tells about the mother to her mother, and so on. This is the direct maternal line. Note that both males and females receive mtDNA from their mothers, so both men and women can test their mtDNA. An Analysis of mtDNA can identify the ancient maternal lineage to which an individual belongs. These are called the haplogroup. Many haplogroups are continent-specific and some of their branches are region-specific.

Y Chromosome

The Y chromosome is transmitted from father to son. Therefore, testing the Y chromosome provides information about the direct male line, meaning the father to his father and so on. The results of a Y-DNA tests can predict the haplogroup which identifies a person's major population group and provides information about the ancient origin of the male line. There are a wide variety of applications for Y-DNA testing. It can be used to confirm or provide clues to the genealogical research for your family tree or to determine which family trees with the same or variant surnames are related. To simplify, analysis of the Y chromosome can be used to trace the father’s surname.

Overall

DNA contains the blueprint of all living beings. Women inherit 50% of their chromosomes from their mother and 50% from their father. For men, the percentage is about 51% from their mother and 49% from their father. Looking at grandparents the average percentage is 25% but it actually may be markedly different. The maternal mitochondrial DNA only makes up about 0.0003% of our DNA. But since all of your mitochondrial DNA comes from your mother, technically you are more related to your mother than your father. It’s the parts of the body that require energy, such as the brain and muscles, that have cells packed with mitochondria.

GPS ORIGINS

I resisted having my DNA tested for a long time. Then, in 2017, I found GPS Origins who test for 800,000 autosomal genetic makers, 862 reference populations and 36 gene pools. In other words, their ancestral tracking technique is able to more accurately pinpoint your genetic genealogy. And I wasn't disappointed. GPS Origins also provided documentation on migration routes and gene pool origin, both of which is included below.

Three of my grandparents emigrated from Sicily and the other from the Cosenza region of Calabria. But from my genealogy research, it became obvious that their ethnic backgrounds were not similar. GPS Origins gene pool results confirmed my belief and also my guess as to their ethnic origins.

CAROL ORDILLE's GENE POOL %'s

# 1 Sardinia 13.2%	Origin: Peaks in Sardinia and declines in Italy, Greece, Albania, and The Balkans
# 2 Southern France 12.5%	Origin: Peaks in south France and declines in north France, England, Orkney Islands, and Scandinavia
# 3 Fennoscandia 12.4%	Origin: Peaks in Iceland and Norway and declines in Finland, England, and France
# 4 Western Siberia 11%	Origin: Peaks in Krasnoyarsk Krai and declines towards east Russia
# 5 Orkney Islands 10.3%	Origin: Peaks in the Orkney Islands and declines in England, France, Germany, Belarus, Poland
# 6 Basque Country 8.3%	Origin: Peaks in France and Spain Basque regions and declines in Spain, France, and Germany
# 7 Tuva 7.6%	Origin: Peaks in south Siberia (Russians: Tuvinian) and declines in north Mongolia
# 8 Southeastern India 7.2%	Origin: Endemic to south eastern India with residues in Pakistan
# 9 Northwestern Africa 6.7%	Origin: Peaks in Algeria and declines in Morocco and Tunisia
# 10 Northern India 4.1%	Origin: Peaks in north India (Dharkars, Kanjars) and declines in Pakistan
# 11 The Southern Levant 3.1%	Origin: This gene pool is localized to Israel with residues in Syria
# 12 Arabia 2.8%	Origin: Peaks in Saudi Arabia and Yemen and declines in Israel, Jordan, Iraq, and Egypt
# 13 Western South America 0.9%	Origin: Peaks in Peru, Mexico, and North America and declines in Eastern Russia

This diversity made it easier to assign gene pool results between my parents.

FIRST IMPRESSION ALLOCATION of GENE POOL RESULTS

Paternal: Sicily-Sicily		Maternal: Sicily-Calabria	
Sardinia	13.20%	Norway, Iceland	12.40%
Southern France	12.50%	Krasnoyarsk-W Siberia	11.00%
Basque	8.30%	Orkney Islands	10.30%
Algeria	6.70%	Tuva - South Siberia	7.60%
Southern Levant	3.10%	SE India	7.20%
Peru, Mexico	0.90%	Saudi Arabia	2.80%
	44.70%	N India	4.10%
			55.40%

With migratory patterns, over time the influence of Southern Levant, SE India, and Saudi Arabia is probably shared among all my ancestors. The allocation is probably in the 60/40 ratio for Southern Levant and SE India and more of a 70/30 ratio for Saudi Arabia. This will achieve a theoretical 50/50 Gene Pool split. Therefore a proposed allocation of Gene Pool results is as follows:

PROPOSED DISTRIBUTION of GENE POOL RESULTS

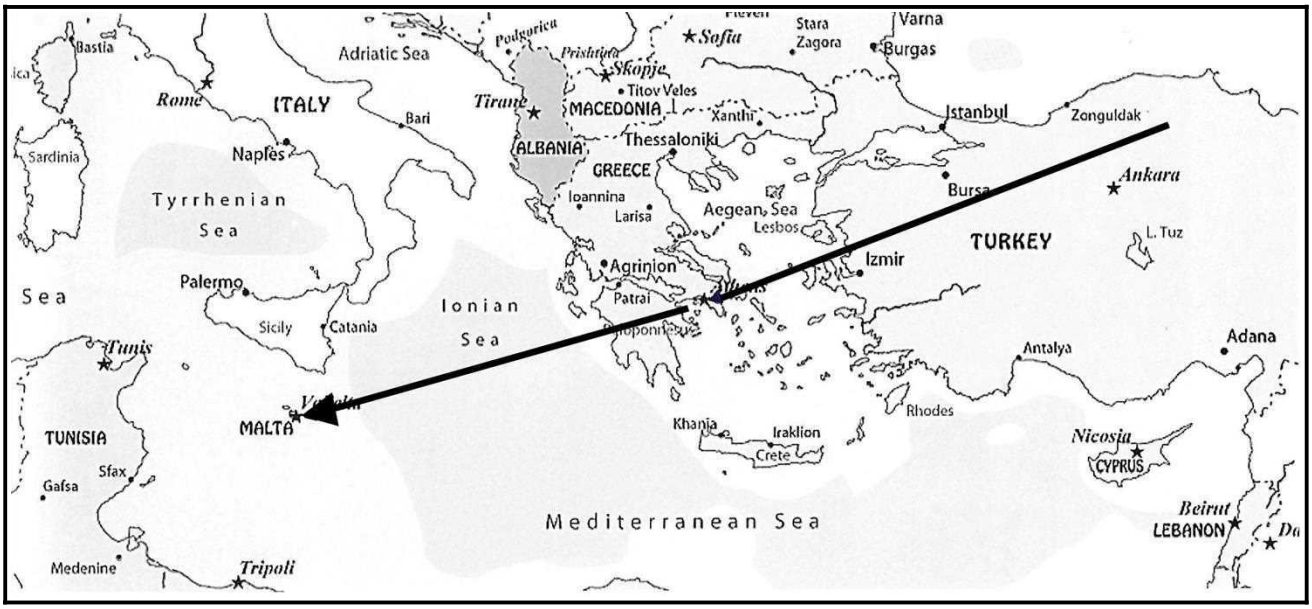
Paternal: Sicily-Sicily		Maternal: Sicily-Calabria	
Sardinia	13.20%	Norway, Iceland	12.40%
Southern France	12.50%	Krasnoyarsk-W Siberia	11.00%
Basque	8.30%	Orkney Islands	10.30%
Algeria	6.70%	Tuva - South Siberia	7.60%
SE India	4.50%	SE India	2.70%
Southern Levant	2.20%	Southern Levant	0.90%
Saudi Arabia	1.70%	Saudi Arabia	1.10%
Peru, Mexico	0.90%	N India	4.10%
	50.00%		50.10%

Of the Gene Pool results, paternally the top four account for 40.7% and maternally the top four account for 41.30%. In reality, the allocation of the remaining 9.3% and 8.8% respectively can be any combination of influences from India, Israel, Arabia, and South America.

Paternal Migration Routes

Early migration stories provide insight into the paternal Gene Pool and can help establish proposed distributions.

The Early Migration Story



Turkey: 996-1562

Byzantine Turkey

Following the death of Teodosius I in 395, the Roman Empire was divided between his two sons. Constantinople (Istanbul) became the capital of the Eastern Byzantine Empire which went on to rule most of the territory that is know today as Turkey until the Late Middle Ages. The remaining eastern territory remained in Sassanid Persian (Iran) control.

Between the third and seventh centuries, the Byzantines and Sassanids frequently battled over possession of Anatolia (Asia Minor). In 532, the politically motivated Nika Riots saw a great fire break out in Constantinople, killing many people and destroying much of the city. This constant warfare significantly exhausted both empires thus opening up the eventual Muslim conquests of both empires.

People migrated from Sweden, Poland, Kazakhstan, and around the Byzantine Empire and Central Asia to Turkey looking for opportunities. Vandals (who were originally from Sweden), Bulgars and other Turkic tribes from Central Asia were settled in Asia Minor by the Byzantine emperor to gain a political advantage. Iranians who deserted the Persian army were welcomed into the Byzantine forces.

At the same time, populations moved from Turkey to places like Greece, Cyprus, Bulgaria, Syria, Armenia, Egypt, Iraq, and Iran and across the Byzantine Empire as the Turkish people often took on positions of authority.

The Conflict Between the Byzantines and the Arabic Caliphate

From the 7th century, the Byzantine Empire began to decline in size and influence, weakened by external threats and internal instability. In 627 the Persians were forced out of Turkey. They were replaced by the Muslim Arabic Caliphate who waged war with the Byzantines over four centuries. The Byzantines also faced Slavic Bulgars in the west, and Kievan Rus' in the north. In addition, the rift between western Rome and the Byzantine Empire deepened with the Iconoclastic Byzantine emperors of the 8th century.

People migrated from Greece, Cyprus, Saudi Arabia, Oman, Armenia, Syria, the Balkans, and the Middle East and Central Asia to Turkey for reasons such as movement within the Byzantine Empire, continual Arab migration from the Arabian peninsula, and the continued migration of Turkic tribes from Central Asia. Syrians and Armenians were moved to Turkey during the reign of Constantine V to cultivate new land, and Slavs from the Balkas were resettled in Asia Minor.

At the same time, populations moved from Turkey to places like Greece, Cyprus, Bulgaria, Syria, Armenia, Egypt, and the Balkan states and other countries in the Byzantine Empire as the Turkish people took up jobs in administration and colonized unoccupied land. Many Turkish Greeks were settled across the Balkans.

The Seljuks, Latin Crusaders and the Mongol Golden Horde

The Byzantines faced a new threat from the Turkic Seljuk Empire, which had united the eastern Islamic world, and whose expansion into the Middle East played a key role in the Crusades. Despite a 12th century renaissance in Turkey, subsequent centuries of war against Seljuks, Normans and Hungarians, and invasions by Latin Crusaders, the Mongol Golden Horde and finally the Serbian Empire, greatly weakened the Byzantine Empire. On May 29, 1453 the Byzantine Empire came to an end when Constantinople fell to the Ottoman Turks. This event is said to mark the end of the Middle Ages.

People migrated from Greece, Armenia, Italy, and Egypt and Central Asia to Turkey due to (1) population re-settlements within the Byzantine Empire, (2) the arrival of Italian and Egyptian traders, (3) incursions of the Seljuk Empire and (4) the brief occupations by Latin crusaders, the Mongols and the Serbian Empire. Land destroyed in the crusades was rapidly repopulated and many people transferred to Constantinople from Morea (Southern Greek Peninsula).

At the same time, populations moved from Turkey to places like Italy, Romania, Hungary, Poland, Serbia, and Christian Europe and the Balkan states due to the Ottomans' war with the Republic of Venice, the raiding of Transylvania, the invasion of Serbia, and the Crusade of Varna which saw a series of Ottoman victories over the European crusaders.

Movement from Turkey to Greece: 1137-1601

Roman Greece

After the Battle of Corinth in 146 BC, Greece became part of the Roman Empire. Some Greek city-states managed to maintain independence and avoid taxation and the Romans did not replace pre-existing Grecian political and administrative systems. Under Roman rule Greek arts, education, and culture continued to flourish and in 212 AD the Roman Empire granted citizenship to all adult men in the Roman world.

People migrated from Italy, Albania, Cyprus, Macedonia, Georgia, Bulgaria, and Kosovo and movement around the former Greek Empire to Greece as a result of Roman invasion.

At the same time, populations moved from Greece to places like Turkey, Armenia, Albania, and Cyprus and across the Byzantine Empire as the Greeks were especially respected as teachers and doctors by the Byzantines.

Greece Suffers under the Byzantines

The newly Christian Orthodox Greece and the Byzantine Empire prospered as the Roman Empire declined until, in 364, they split. Greece entered a period of prosperity and progressive reform. But from the 4th century onwards, they were raided by various tribes including Goths, Vandals, Huns, Slavs and Bulgars. Despite improving fortifications, the Byzantine emperors struggled to keep settlers out of the Greek Peninsula and Greece suffered extensive economic damage.

People migrated from Romania, Ukraine, Moldova, Bulgaria, and Turkey and other Byzantine countries to Greece due to the immigration and settlement of Slavic people across Greece and the resettlement of Greek-speaking people from Asia Minor to the Greek peninsula. Skilled laborers, traders and artists moved around the Byzantine Empire looking for work. Bulgars were encouraged to settle across Greece by the Byzantine Emperor.

At the same time, populations moved from Greece to places like Kosovo, Macedonia, Montenegro, Albania, and Italy and the Balkan states in response to the expulsion of Slavic people from many Balkan states leaving vacant land and opportunities. The Byzantines frequently moved Greeks around the Empire, as teachers, slaves, soldiers and farmers.

Prosperity, Industry and the Rise of the Byzantine Aristocracy

In the 8th century Greece was re-conquered by the Byzantine Empire which resettled many people from Asia Minor in the Greek Peninsula and the Balkans. Despite suffering continued invasions from Bulgarians, Slavs, Franks, Normans and Arabs, overall Greece was relatively prosperous. From the 10th to 12th century it enjoyed large growth of both population and economy, with a flourishing silk industry and the rise of an aristocratic class.

People migrated from Turkey, Armenia, Albania, Greece, and Bulgaria and Italy to Greece as part of the Byzantine practice of resettling families across the Byzantine Empire, especially in Greece where Emperor Constantine V was hoping to dilute the increasingly Slavic population. Venetians began to arrive in the coastal regions to trade.

At the same time, populations moved from Greece to places like Turkey, Italy, Armenia, Cyprus, and Macedonia and around the Byzantine Empire as Greeks were considered valuable employees, especially in the education and medical sectors. Emperor Constantine V moved a large number of Greeks to Constantinople to solve the population depletion following a Plague.

Movement from Greece to Malta: 1068-1510

Roman Malta and Tribal Occupation

At the outset of the Second Punic War, the Carthaginians of Malta were defeated and the island came under Roman political control as part of the province of Sicily. Malta flourished under Roman rule and enjoyed a degree of independence having its own senate, people's assembly and coinage. Latin became the official language of Malta, and Christianity spread from 60 AD.

People migrated from Italy, Germany, and other Central European and Scandinavian countries to Malta as the Roman army conquered Malta. It was subsequently home to waves of invading Germanic tribes during the Migration period.

The Byzantine Occupation

In 296, on his way to North Africa, the Byzantine General Belisarius conquered Sicily and Malta. Under Byzantine administration, many Greek families migrated to Malta, which operated under Greek governors as a dependent of Sicily. Maltese religious allegiance switched from the Pope in Rome to the Patriarch of Constantinople.

People migrated from Italy and Greece to Malta when the Byzantines re-conquered Malta.

Muslim Colonization

After the Muslim-Byzantine wars, Arab raids in Malta left widespread destruction and the population decimated. Having established the Emirate of Sicily under the Aghlabid dynasty, many Sicilian Muslims recolonized Malta in the 11th century, bringing with them the Siculo-Arabic language, new fruits, cotton and slaves. Maltese Christians were not forced to convert to Islam, but were required to pay a 'jizya' tax.

People migrated from Italy, Tunisia, Libya, and Algeria and the Middle East to Malta due to the arrival of Muslim Arabs who settled in Sicily before recolonizing Malta a century later.

The Sardinian Connection

The island of Sardinia has a long history of genetic and geographic isolation. While the people of this island are characteristically Mediterranean in appearance, such as dark hair and eyes, and olive skin, they have a unique history within the Mediterranean region.

Evidence of modern human habitation in Sardinia extends back to the Paleolithic period, 18,000 BC. A stone tool culture that was distinct from neighboring regions had also appeared by this time. Deer hunting was a major part of Paleolithic subsistence. The arrival of farming is associated with a subsequent rise in population. Complex civilization developed during the Bronze Age dating from 1800 BC and fortified towers known as Nuraghe began to be built. Bronze Age Sardinia traded within a network of ancient societies that was centered in the Central and Eastern Mediterranean.

From the 8th century BC, the Phoenicians of the Eastern Mediterranean brought Sardinia within their trading empire and established cities and ports along the south-west coast. In the late 6th century, Carthaginians disrupted the Greco-Roman influence and asserted control over all Sardinian trade. There remained, however, little evidence of major migration into Sardinia except for a small number of Carthaginian elites. This period of comparative stability under Carthaginian influence lasted until the Punic Wars in the 3rd century BC, which brought the island under direct control of Rome. This led to a political process that turned the island into a Roman province.

When the Roman Empire split into western and eastern sections, the eastern portion was reformed as a new political entity known as the Byzantine Empire, in which Sardinia was included. The Byzantines faced threats from the Arabs to the south as well as other external raiding groups coming from other areas within Europe. Arab raids on the island occurred between 807 and 813. This caused significant disruption of economic activity in Sardinia, although there was no substantive colonization of the island by these invaders. The island became isolated during this period of instability.

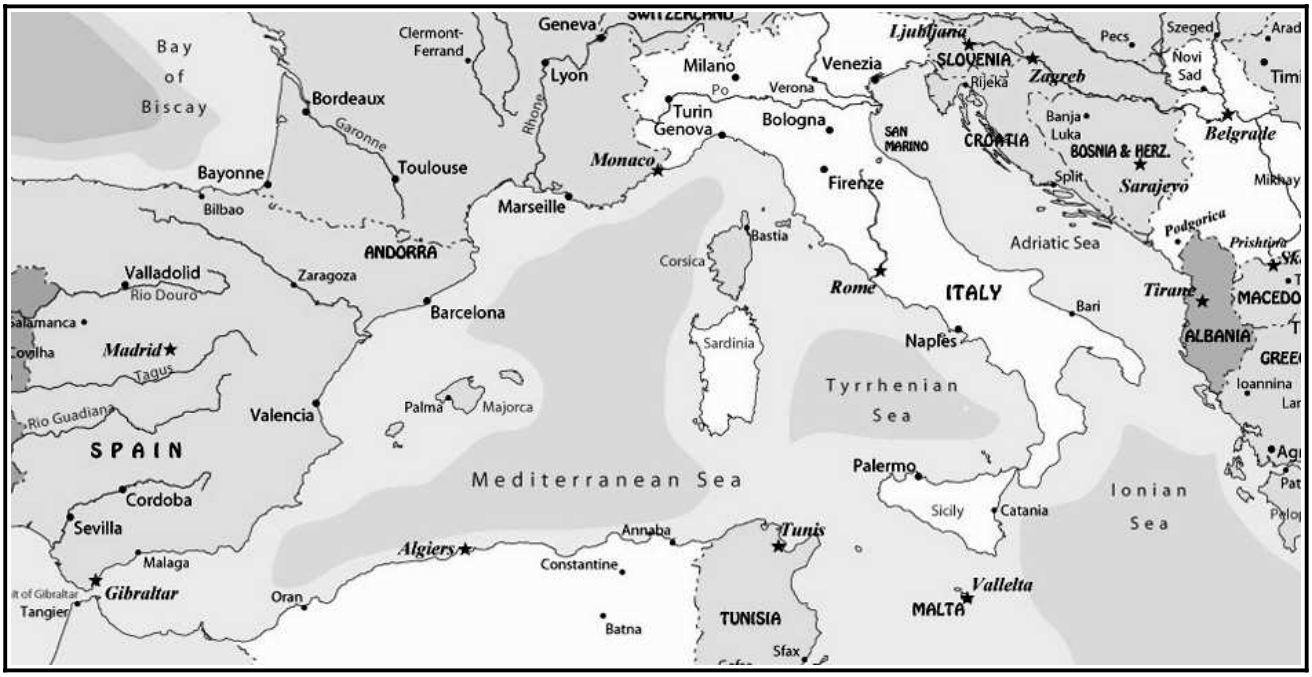
Between the 8th and 10th centuries, Sardinia became increasingly autonomous and a local system known as the Giudicati or 'judges' developed on the island. In subsequent centuries there was an increasing frequency of interactions with Italy and papal influences, resulting in the establishment of monastic orders. Rivalry among the Italian states of Pisa, Genoa and the Catalonian Crown of Aragon led to the Crown of Aragon as the victor and the formation of the Kingdom of Sardinia in the early 14th century. The Aragonese then repopulated the cities of Castel di Castro and Alghero with Iberian colonists. (In present day, Aragon is an autonomous community in NE Spain which covers three provinces. Its capital is Zaragoza.)

By the 16th and 17th centuries, the main cities of Cagliari, Alghero and Sassari were cosmopolitan centers. Their population wasn't only Sardinian but included those from Spain, Liguria, France, and the Island of Corsica. Note that from at least the 5th century, especially in Sassari and across the strip of territory that goes from Anglona to Gallura, Corsicans made up the majority of the population.

When the Spanish era ended in 1713, the entire island was ceded to the Austrian House of Habsburg. This was followed in 1718 by another cession to the Duke of Savoy. Then in 1861, the Kingdom of Sardinia became part of the unified Italian state in which it remains to the present day.

Sardinians began to migrate from the islands to both South America and the United States during the late 19th and early 20th centuries.

Sardinia is unique within Europe in that there has been relatively little documented migration to the island from surrounding areas since the beginning of the Bronze Age. Despite such genetic isolation, Sardinia has a long history of interaction with its Mediterranean neighbors in terms of both trade and political union, particularly Italy and the Eastern Mediterranean.



The Southern France Connection

The people of Southern France today appear to share many common features in appearance with their Mediterranean neighbors. At the same time, the region's position within Europe made it easier for people to move between the north and south. Known as the Midi region, it includes Aquitaine, Languedoc, and Provence, and it is bounded by Spain and the Pyrenees to the south and by Italy and the Alps to the northeast.

Southern France and much of the surrounding area was inhabited by Neanderthals during the Paleolithic era, who became extinct upon the arrival of modern humans between 35,000 to 50,000 years ago. The area was situated at the edge of the Paleolithic ice sheets and was a refuge for people pushed back by worsening climate conditions further north, creating constant movement in and out of the region. The earliest modern humans that arrived in Southern France were Ice Age hunter-gatherers. These people are famous for producing some of the earliest cave paintings known to exist, such as the limestone caves of the Pyrenees.

Hunter-gatherer migration persisted for thousands of years and population density remained low. The development of agriculture in the Middle East and its spread into Europe, which started about 12,000 years ago, brought major changes to the region, as large-scale migration of people occurred along the southern corridor of the Alps. These people brought with them their languages, which are believed to be part of the Indo-European language family which exists all over Europe today. Nearly all of the currently spoken languages in Europe are thought to relate to this expansion of early farmers. In Southern Europe, this migration south of the Alps links the Latin languages of Italy, Spain, and France, while Germanic languages are found north of the Alps. This suggests that the early farming cultures that arrived in France came through the south and proceeded north.

A Bronze Age culture developed by 1000 BC with settlements throughout Southern France. Over the next thousand years, Iron Age societies began to appear throughout all of France, and became unified as a culture known as the Celts. These Celtic societies formed strong links throughout France and into other parts of Northern Europe. These societies were eventually overwhelmed by the Romans who conquered all of present day France, turning it into the Roman province of Gaul. After the breakup of the Roman Empire, the southern area of France has generally remained within the borders of the Kingdom of France, with economic practices firmly rooted in the cultures of the Mediterranean.

The diversity of languages in the region may hint at populations that were ethnically and culturally distinct from one another. Catalan, Aragonese, and Gascon are Indo-European languages related to the French that are spoken in other areas of the Pyrenees today. Aragonese and Gascon have been in decline in recent centuries. While it may not be possible to link these populations back to the earliest societies in the area, they do provide some grounds for investigating local genetic ancestry.

Family Coming Together

Let's take another look at the proposed paternal gene pool.

PROPOSED GENE POOL DISTRIBUTION	
Paternal: Sicily-Sicily	
Sardinia	13.20%
Southern France	12.50%
Basque	8.30%
Algeria	6.70%
SE India	4.50%
Israel	2.20%
Saudi Arabia	1.70%
Peru, Mexico	0.90%
	50.00%

Algeria, Southeast India, Israel, and Saudi Arabia are clearly all represented by the early migration patterns. Western South America with peaks in Peru, Mexico, and North America and declines in Eastern Russia is a little harder to conceive. Unless you consider the Spanish Empire.

Basque, Peru, Mexico

Starting in 1492 with the arrival of Christopher Columbus and continuing over the next three centuries, the Spanish empire would expand across the Caribbean Islands, western half of South America, most of Central America, and much of North America including present day Mexico, Florida, and the southwestern and pacific coastal regions of the United Sates. With the imposition of Spanish rule in both Mexico (1519-1521) and Peru (1530's) as well as other regions, the conquering soldiers were given parcels of land on which they settled and exploited the labor of the people that were left in their care. These first settlers were followed by thousands of Spaniards who arrived to settle in the newly established territories.

And among those Spanish conquers were the Basque. The Basque region is located in the northwest part of Spain and southwest of France. On one side is the Bay of Biscay and on another the Pyrenees Mountains and on the third the Ebro river. These natural boundaries made it difficult for other countries to colonize the area and also kept them autonomous. Many of the smaller farming communities were united together by their language. The Basque language is one of the most difficult to learn. The only other area where a Basque related language was spoken is the Gasciny in France, north of the present day Basque region.

The Basque played an important role in early European maritime ventures. The earliest record of the use of whale oil or blubber by the Basque dates from 670 to 1059. They sold blubber to the French, Castilian, and Flemish. Also, the rudder seems to be a Basque invention. Magellan's expedition was manned by 200 sailors of which at least 35 were Basque. In 1521 when Magellan was killed in the Philippines, his Basque second in command took the ship all the way back to Spain. The Basque thrived on whale hunting, shipbuilding, and trade. The defeat of the Spanish armada 1588 lead to the decline of

whaling and the rise of privateers. Serving under the Spanish flag many Basque became notable sailors while others became notable privateers for the French and Spanish kings.

Gesso, Messina, Sicily

Gesso (Ibiso) is a small village located on the SS113 about 10 miles northwest of Messina and about 2 miles from Villafranca Tirrena. It sits on the northern side of the Peloritani Mountains in a hilly area, about 870 feet above sea level, near the Tyrrhenian Sea. Nearby are the ancient towns of Salice and Serro, and the village of Orto Luizzo. Gesso was also on a strategic trade and military route that linked the Tyrrhenian Sea in the west to the city of Messina in the East. The village's origins date to before the arrival of the Normans.

The English translation of Gesso is chalk, gypsum, or plaster of paris. The reference is to the quarries of calcium sulphate or gypsum that formed the economic basis of the town for centuries. The quarries have been closed since the 1960's.

At one time, Gesso was an important center of Greek orthodox worship. It was home to at least three Basilian monasteries: St. Gregory the Great, St. Biagio, and St. Nicholas. All have since been destroyed. The region was known as the Basilian district in the Middle Ages. According to an 18th century monk, Rocco Pirro, in 1063 Count Ruggero d'Altavilla wanted to build a monastery and church dedicated to Saint Gregory on the exact spot where he defeated the Saracens. Subsequently, the monasteries of St. Biagio and St. Nicholas were constructed. While the people of Gesso successfully defended themselves against an attack by the Saracens, in 1674, Gesso suffered greatly from the revolt against the Spanish as the skirmishes neared Messina.

Today, the oldest existing buildings in the village date from the 17th century: the parish church of St Anthony Abbot (inaugurated 1/17/1612), the convent of San Francesco da Paola, the Capuchin monastery and the adjoining Church of the Immaculate Conception.

A Gathering

What does the village of Gesso have in common with the diverse cultures in my family history? Why did they all meet in Gesso?

Could it be because of Gesso's strategic location and that it is near the Port of Messina or was it because of the economic potential of the nearby gypsum quarries. It could easily be a combination of many things or just chance alone. We may never know.

What we do know is that whether for trading, military assignment, colonization, fleeing oppression, or just seeking a better life, my ancestors all made their way to Sicily at one point along their journey. Based on the gene pool, they most likely weren't solitary travelers but for either trade, military, or colonization. They settled in the area with family and friends of similar ethnic origin.

Surname Significance

Knowing my DNA results are compatible with the historical events that brought my ancestors together is only part of the picture. Looking at my family tree could also help decipher the gene pool contribution of each ethnic group represented. While surname analysis may not be appropriate in all cases, it does show some validity here and allows another approach to confirm the DNA results.. The following represents an Ancestor Chart for my father.

ANCESTRAL CHART

FIVE GENERATIONS

1 2 3 4 5

Salvatore "William" **Ordille** (1911-2011)
Francesco **Ordille** (1874-1919)
Antonius **Ordile** (1835-1912)
Francesco **Ordile** (abt 1782-1864)
Giuseppe **Ordile** (abt 1759-)
Felice **Campanella** (1762-bef 1820)
Domenica **Berenato** (abt 1790-1858)
Vittorino **Berenato** (abt 1763-1849)
Maria **Ordile** (abt 1765-)
Antonia **Pagano** (1835-1886)
Angelo **Pagano** (1809-)
Francesco **Pagano** (abt 1766-1842)
Antonia **Macri** (abt 1770-1846)
Angela **Brancato** (1811-1889)
Antonio **Brancato** (abt 1774-1846)
Concetta **Giacobbe** (abt 1787-)

Caterina **DePietro** (1870-1948)
Pasquale **DePietro** (1833-1903)
Matteo **DiPietro** (abt 1787-bef 1870)
DiPietro
(Unknown)
Caterina **Giacoppo** (abt 1787-1839)
Domenico **Giacoppo** (bef 1767-)
Giuseppa **LaRosa** (bef 1767-)
Nataliza **Angemi** (1842-1920)
Stefano **Angemi** (1800-)
Francesco **Angemi** (abt 1753-)
Maria **Carbone** (abt 1759-1848)
Giuseppa **Tomasello** (1816-1853)
Domenico **Tomasello** (bef1794-bef1841)
Stefana **Celesti** (bef 1794-bef 1841)

These five generations represent approximately 50% of my DNA. They represent 13 distinct surnames over 30 occurrence and my most recent ancestry. All the surnames appear to be Italian but that only refers to the present day reference. They all evolved over time in both spelling and pronunciation. This evolution became an integral part of their journey. So to determine how they fit into my gene pool we need to look more closely at their original origins.

In order to determine how the proposed DNA target gene pool could actually match my ancestors, the following table shows a surname's possible ethnic origin. Although crude, surname meaning and noted locations may hint to early origins.

POSSIBLE ETHNIC DISTRIBUTION OF MY ORDILE FAMILY

Five Ancestral Generations

Surname	Freq	Meaning	Possible Early Origin	Notes
Ordile	6	"wealthy"	France	var Odile (aw deel) Odile is French
Campanella	1	"small church bell" or "bell ringer"	Spain (Basque)	var Campana is Spanish; also in Padua, Venice
Berenato	2	"strong as bear"	Spain (Basque)	var of Bernardo – Spanish;
Pagano	3	"pagan" or earlier "rustic"	N Africa	also found in Messina
Macri	1	"tall person" from Greek makri	N Africa	also from Rome, Papal States, Roman province in N Africa
Brancato	2	from given name Brancazio	Israel	Italian/Jewish
Giacobbe/ Giacoppo	3	form of Jacobus (Latin)	Sardinia/ France	Jacques (French); also in Florence, Tuscany area
DePietro	4	Son of Peter; Greek Petrus means "rock"	Sardinia/ France	also in Venice; could be French, Spanish, even Russian
LaRosa	1	"of Roses"	Sardinia	Rosa, Rosas, Derosas are Sardinian surnames
Angemi	3	"barber surgeon"	N Africa/ Arabia	var Cangemi is arabic
Carbone	1	"coal miner" or "dark features"	Sardinia	Carboni is Sardinian; also found in Naples, Sicily
Tomasello	2	from given name Thomas	Basque	also Naples-capital Kingdom Two Sicilies – Spanish rule
Celesti	1	form of Caelestis	France	var Celeste is French
"unknown"	1		Basque	just a guess since early marriage to Tomasello

The above table may not be the only possibility but it is a feasible solution taking into consideration migration patterns, conquering empires, and trade routes. Using this possible ethnic distribution, the comparison to my DNA results is as follows:

	TARGET OPTIONS						FINAL	
	FIRST		PROPOSED		SURNAMES		DNA ALLOCATED	
	%	Sub	%	Sub	%	Sub	%	Sub
Southern France	12.50		12.50		16.93		12.50	
Sardinia	13.20		13.20		8.87		13.20	
Basque Country	8.30		8.30		9.68		8.30	
W South America	0.90	34.90%	0.90	34.90%	--	35.48%	0.90	34.90%
NW Africa-Algeria	6.70		6.70		8.87		6.70	
SE India	--		4.50		–		2.50	
Israel	3.10		2.20		3.23		3.10	
Arabia	--	9.80%	1.70	15.10%	2.42	14.52%	2.80	15.10%
		44.70%		50.00%		50.00%		50.00%

The last columns show the final percentages of my Gene Pool DNA allocated to my father. The thought process does show a logical progression with my paternal ancestors following a southerly migration pattern. In this case, only the influence of Southeastern India is shared between my parents.

Also, by the time my ancestors settled in Sicily, the western South America influence was integrated with the Basque. So those two gene pools can be combined in the surname analysis.

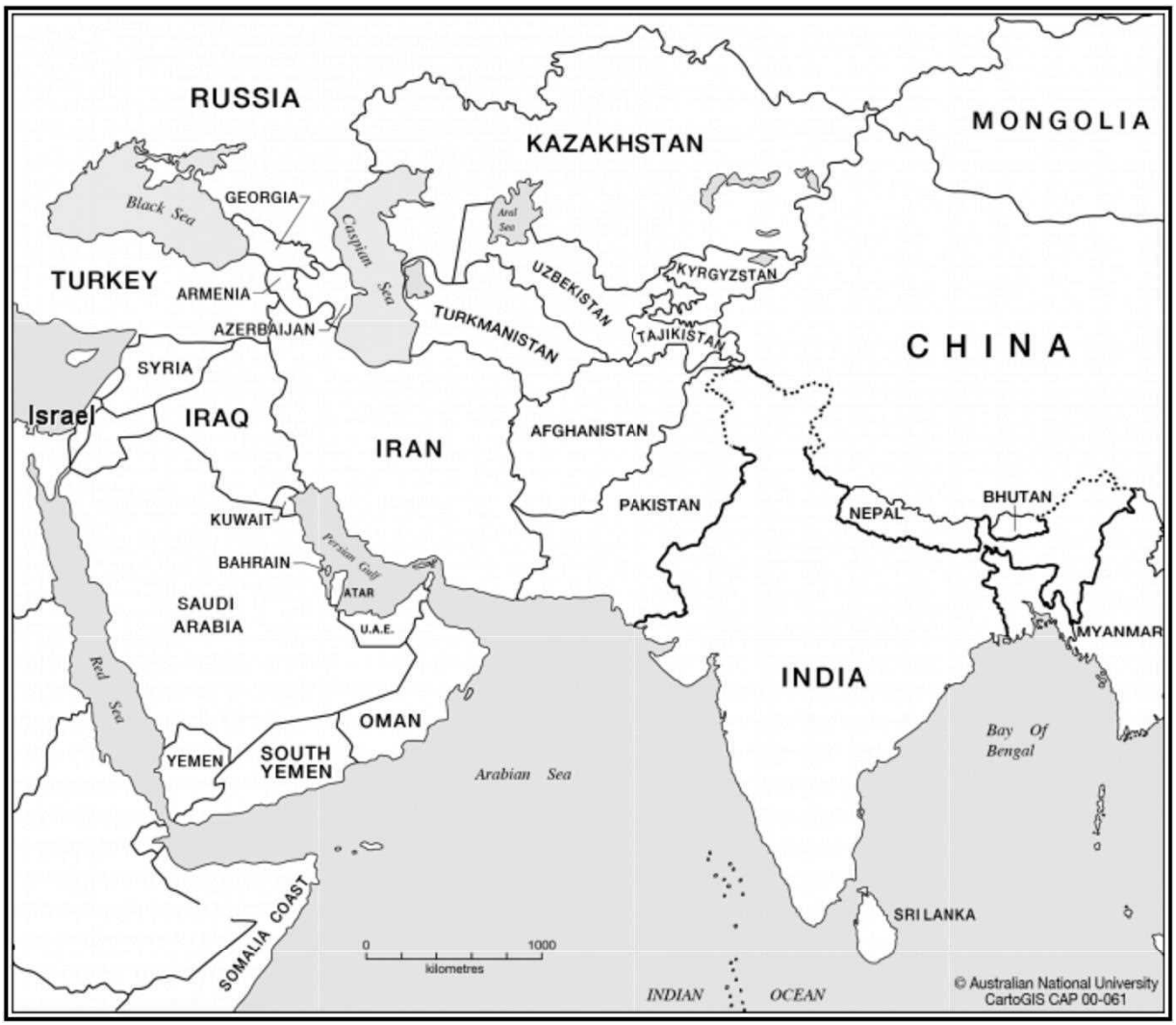
Southeastern India

Up to this point Southeastern India has not been discussed. The Region was in the middle of the trade route that linked the Mediterranean to East Asia. From the 3rd century BC to the 4th century AD, they traded with the Phoenicians, Romans, Greeks, Arabs, Syrians, Jews, and Chinese. The region was part of the ancient Silk Road.

Several dynasties ruled over the region from the 6th century BC to the 14th century AD. The Vijayanagara Empire was the last Indian dynasty to rule over the region. After the fall of the Vijayanagara empire in 1646, independence was declared.

Trading rivalries among the seafaring European powers brought other European powers to India. The Europeans arrived in the 15th century. The Dutch Republic, England, France, and Denmark-Norway all established trading posts in India in the early 17th century. But in the middle of the 18th century, the French and the British were involved in a struggle for military control over South India. By 1806. the British gained control of much of present-day South India. The region also played a major role in the Indian independence movement, 22 of the 72 delegates who participated in the first session of the Indian National Congress in 1885 were from South India.

It is easy to think that my ancestral southeastern India influence was through the French since they established trading posts in India. But it probably occurred much earlier than that. The greatest value of the Silk Roads was the exchange of culture, art, religion, philosophy, technology, language, science, architecture, and every other element of civilization along with the commercial goods the merchants carried from country to country. It was most likely the relationships established over the centuries with the Africa, Algeria, Israel, and Arabia traders that enhanced my gene pool with southeastern India DNA.

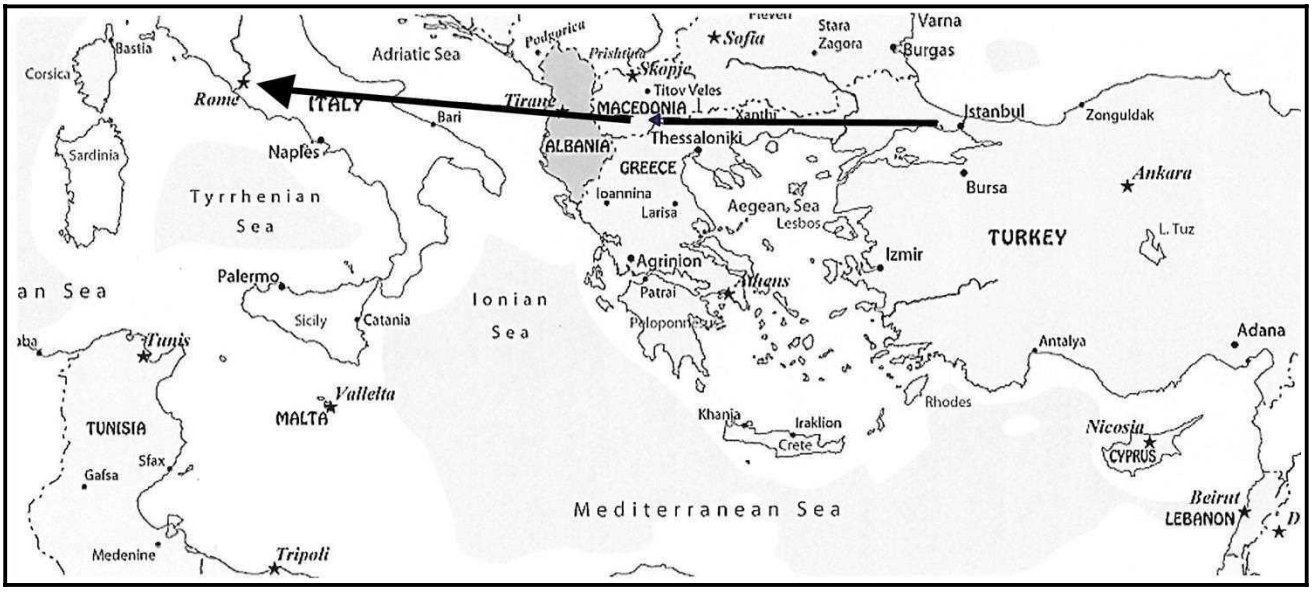


Maternal Migration Routes

My paternal DNA Analysis leaves the results for my maternal Gene Pool as follows:

DISTRIBUTION of GENE POOL RESULTS Maternal: Sicily-Calabria	
Norway, Iceland	12.40%
Krasnoyarsk-W Siberia	11.00%
Orkney Islands	10.30%
Tuva - South Siberia	7.60%
SE India	4.70%
N India	4.10%
	50.10%

The Early Migration Story



Turkey: 1272-1799

Roman Turkey

Between 50 BC and 394 AD, Turkey was ruled by local leaders in a period known as the Roman era. In 50 BC, Rome began its gradual invasion of Turkey, conquering the majority of Asia Minor and Thrace by the 1st century BC. The rest of Turkey was part of the Sassanian Empire. The Romans, far from being oppressive, allowed local governments a great degree of autonomy and their rule was mostly felt in the rapid modernization of infrastructure, the continued spread of the ancient Greek language and culture, the introduction of Christianity, and the promotion of trade and commerce.

People migrated from Italy and Greece and Central Asia to Turkey due to the early Christians escaping Roman persecution, the continued influence of Greek culture in

Turkey and the migration of Turkic tribes from Central Asia. Note that the Turks were nomadic tribes whose empire ranged from Central Asia to Siberia and included the Tuvans in south central Russia. At the same time, populations moved from Turkey to places like Iraq, Greece, Cyprus, Bulgaria, Armenia, Syria and Egypt to fight in or escape from the frequent wars with Persians in Iraq.

Byzantine Turkey

Between 395 AD and 601 AD, Turkey was ruled by local leaders in a period known as the Late Roman era. In 395 the Roman Empire was divided and Constantinople (Istanbul) became the capital of the Eastern Byzantine Empire. This Christian empire went on to rule for over a millennium. In 532, the politically motivated Nika Riots saw a great fire break out in the capital, killing many people and destroying much of the city. This period also saw near constant warfare with the Persian Sassanians (Iran) who ruled much of Anatolia (Asia Minor).

People migrated from Sweden, Poland, Kazakhstan, and around the Byzantine Empire and Central Asia to Turkey looking for opportunities. Vandals (originally from Sweden but then found in Poland), Bulgars and other Turkic tribes from Central Asia were settled in Asia Minor by Justinian I, the Byzantine emperor, to gain a political advantage. Iranians who deserted the Persian army were welcomed into the Byzantine forces. At the same time, populations moved from Turkey to places like Greece, Cyprus, Bulgaria, Syria, Armenia, Egypt, Iraq, and Iran and across the Byzantine Empire with the Turkish people often taking on positions of authority. The Byzantines continued to launch attacks against the Persian Sassanians.

The Conflict Between the Byzantines and the Arabic Caliphate

Between 602 AD and 1015 AD, Turkey was ruled by local leaders in a period known as the Middle Byzantine era. From the 7th century the Byzantine Empire began to decline in size and influence, weakened by external threats and internal instability. In 627 the Persians were forced out of Turkey, but were rapidly replaced by the Muslim Arabic Caliphate who engaged the Byzantines in four centuries of war. The Byzantines also faced Slavic Bulgars in the west, and Kievan Rus' in the north. The rift between western Rome and the Byzantine Empire deepened with the Iconoclastic Byzantine emperors of the 8th century.

People migrated from Greece, Cyprus, Saudi Arabia, Oman, Armenia, Syria, the Balkans, and the Middle East and Central Asia to Turkey for reasons such as movement within the Byzantine Empire, continual Arab migration from the Arabian peninsula, and the continued migration of Turkic tribes from Central Asia. Syrians and Armenians were moved to Turkey during the reign of Constantine V to cultivate new land and Slavs from the Balkas were resettled in Asia Minor.

At the same time, populations moved from Turkey to places like Greece, Cyprus, Bulgaria, Syria, Armenia, Egypt, and the Balkan states and other countries in the Byzantine Empire as the Turkish people took up jobs in administration and colonized unoccupied land. Many Turkish Greeks were settled across the Balkans.

Movement from Turkey to Macedonia: 515-1388

Roman Macedonia

Between 146 BC and 394 AD, Macedonia was ruled by local leaders in a period known as the Roman era. In 146 BC the Romans defeated the Kingdom of Macedonia and

established the province of Macedonia, a large administrative region incorporating parts of Albania, Bulgaria and Greece. Roman rule brought with it economic prosperity, improved infrastructure and modernized administration as well as a tide of educated and skilled immigrants from around the Roman Empire.

People migrated from Greece, Bulgaria, Albania, and Italy and Kosovo to Macedonia seeking trade and labor opportunities. Many Greeks worked in Macedonia as doctors and tutors. At the same time, populations moved from Macedonia to places like Greece, Bulgaria, and Albania and countries around the Roman Empire looking for better opportunities including a chance to acquire land or trade.

Byzantine Macedonia

Between 395 AD and 862 AD, Macedonia was ruled by local leaders in a period known as the Byzantine era. After the split of the Roman Empire, the province of Macedonia was part of the Byzantine sphere and thus was further influenced by Greek culture. From the 6th century onwards, Macedonia saw frequent waves of raiding Slavs, Bulgars and Avars and by 680 a group of southern Slavs led by Khan Kuber had settled in Macedonia. This prompted a huge military retaliation from the Byzantines who then relocated many Slavs to Turkey.

People migrated from Turkey, Greece, Kazakhstan, Ukraine, Romania, Eastern Europe, and Central Asia and around the Byzantine Empire to Macedonia as waves of Slavic tribes, Bulgars and Avars settled across Macedonia. There was also lots of migration around the Byzantine Empire because of trade, slavery and other opportunities. At the same time, populations moved from Macedonia to places like Turkey and Armenia as part of the relocation of 110,000 Slavs to Turkey under the Byzantine Emperor Justinian I.

Movement from Macedonia to Italy: 804-1527

The Gothic War

Between 477 AD and 568 AD, Italy was ruled by local leaders in a period known as the Migration period. In 477 the Ostrogoths, a Germanic tribe who had migrated southwest during the Migration period, conquered Italy. However, the Byzantines defeated them in the Gothic War and the Ostrogothic Kingdom was left devastated. The Lombards, another Germanic people, took advantage of the Ostrogoths' weakened state and seized control of Italy. People migrated from Germany, Czech Republic, Slovakia, Slovenia and Eastern Europe, and Greece and Turkey to Italy with the mass migration of Germanic people across Western Europe who were fleeing the Huns. Waves of Greeks continued to arrive in Southern Italy.

The Lombard Kingdom

Between 568 AD and 774 AD, Italy was ruled by local leaders in a period known as the Byzantine era. The Lombards established their kingdom in the north and central Italy, often adopting the pre-existing Roman culture. In the 8th century, they finally seized the last remnants of Byzantine-ruled northern Italy, including the Papacy. The Pope immediately called for aid from the Frankish King Charlemagne, who promptly defeated the Lombards, taking their crown and creating from their kingdom the Papal States. People migrated from Slovenia and Czech Republic and the Slavic countries of Eastern Europe to Italy as a result of Lombard migration to Italy and subsequent Slavic raids.

The Rise of the City States

Between 775 AD and 960 AD, Italy was ruled by local leaders in a period known as the Early Middle Ages. During this period the Frankish Kingdom, united under Charlemagne, rapidly disintegrated upon his death. Northern Italy continued to be ruled by Carolingian kings as part of the Holy Roman Empire, but there was extensive disunity and political fragmentation among the rulers. Independent city-states rose to prominence and the Byzantine south came under attack from an Arab-Muslim army extending the Umayyad Caliphate. People migrated from North Africa, Greece, and Turkey and the Arabian peninsula to Italy as the Arab-Muslim army invaded the Iberian Peninsula and conquered Sicily. Greeks were resettled in the region.

The Fennoscandia Story

The area known as Fennoscandia encompasses the countries of Norway, Sweden, Finland, and a part of Russia known as the Kola Peninsula. It also included Denmark during the Viking Age, which forms part of greater Scandinavia. The people of this region are known for their extensive voyages, which took them beyond the bitter winters of northern Europe to conquer lands further afield within the continent, and even briefly to North America.

At the end of the last Ice Age, the glaciers retreated and hunter-gatherers arrived in northern Europe between 11,000 and 12,000 years ago. The presence of hunter-gatherers is known from archaeological evidence and likely came from populations similar to the early small bands of hunter-gatherers that moved into Europe during the Paleolithic period.

Agriculture appeared in Scandinavia between 4,000 and 6,000 years ago. Archaeological evidence has shown that this farming culture originated in Central Europe and spread north into Fennoscandia. Similar to other regions in Europe, there has been a considerable debate as to whether this evidence for farming meant that immigrants arrived and pushed out the local ancient hunter-gatherers, or whether farming culture was adopted by the people already living in the area. Recent genetic studies analyzing samples of ancient DNA from preserved bones have found differences between prehistoric people and later farming populations suggesting that immigrants may have replaced the locals.

There are two major language groups in Scandinavia: the Germanic language of Norway, Sweden, and Denmark, and the Finno-Ugric languages of Finland. The division between the Germanic and Finno-Ugric speaking areas has been used as evidence to support the theory that the Baltic region may have been a refuge for earlier hunter-gatherers. Analysis of Y-chromosome ancestry from Finno-Ugric speakers in Scandinavia and areas in north Eurasia points to a high level of diversity. The potential ancient origins of these people dates from 12,000 to 14,000 years ago, when they would have traveled on an ancient Paleolithic migration route that may have gone through Central Asia before turning west to Europe.

The consensus among researchers today is that the genomes of the people of Fennoscandia are of a mixed ancestry, which is a combination of ancient hunter-gatherers and more recent Germanic farmers. In areas with more extreme cold climates, there remains more original hunter-gatherer influence, likely due to the marginal nature of farming under such conditions. In Finland, some genetic studies have noted potential historic population crashes as evidence for regional genetic distinctiveness, possibly occurring about 3,900 years ago. Surviving on farming alone was very difficult in such an extreme climate and there is evidence that farming and foraging cultures coexisted in Finland.

Between 600 and 700 AD, social changes in Scandinavia marked the start of a migration event that saw the cultures of Scandinavia make their mark on the rest of Europe. It is thought that economic and political stress, as well as a rapid period of agricultural expansion, led people to seek resources and land further afield, thus catalyzing the start of the Viking Age. Various small kingdoms and chiefdoms invaded and colonized many countries within Europe. Vikings raided, and invaded much of Northern and Western Europe, taking over lands in England, Scotland, and France. They moved east into Russia and further to the west into Iceland, Greenland, and ultimately North America. They briefly settled in what is now Canada's province of Newfoundland. They often mixed in with the local populations, as shown by the mixed British Celtic and Norse origins of Iceland that have been identified both through historical and genetic research.

Viking migration ended in the medieval era but the movement of people from Scandinavia has continued to the present day. In recent centuries there have been migrations to parts

of the United States and Canada, with people often moving into the Mid-West, for example to Northern Michigan, where a distinct Finnish immigrant community is well established.

In the future, we can envision genetic tests that will be able to distinguish between the ancient hunter gatherer and more recent Germanic farming components. There may also be tests that can link individuals back to ancient DNA extracted from archaeological skeletal material. What may also prove fascinating for historical enthusiasts is the possibility of tests in the future that are able to distinguish specific migrations of Viking settlers to different areas of Europe.

A Brief History of Norway

After 7000 BC, the end of the last ice age which made the country habitable, the first people settled in Norway. Those first settlers lived by hunting and fishing. After 3000 BC, farming was introduced in Norway. The first farming tools were made of stone and after 1500 BC bronze was used. In about 200 AD they began to use a form of writing called runes.

Viking Norway

During the 9th century, Vikings from Norway raided Scotland, England, and France. They also raided as far south as Spain which at the time was under Muslim control. The Norwegians were not just raiders. They settled in the Hebrides Island west of Scotland, along with the Shetland and Orkney Islands and the Isle of Man. This was a period of expansion not just for Norway but the whole Nordic region. The Vikings created complex social institutions, oversaw the coming of Christianity to Scandinavia, and left a major impact on European history through trade, colonization, and widespread exploration.

During the Viking raids, even though many women stayed home to look after the household, some women and even children traveled with the men. The raids produced riches and slaves which the Vikings brought back to work the farms. The Vikings were well trained with good weapons and chain-mail armor. Their belief that getting killed in battle resulted in them going to Valhalla. This gave them a psychological advantage in battle for many years. Vallhalla means hall of the fallen and is the hall where the god Odin houses the dead whom he deems worthy of dwelling with him.

During this time Norway was divided into several kingdoms. At the end of the 9th century, Harald Fairhair gained control of the western coast and called himself king of Norway even though he only ruled part of it. He was followed by Eric Bloodaxe (900-935) and Haakon I (935-960). Olaf Tryaggavson who ruled from 995-1000 converted the coastal area of Norway to Christianity. And Oalf Haraldson (1015-1030) was the first king of Norway to convert the inland areas to Christianity.

Norwegian society was divided into three classes. The lowest level were the thralls or slaves. The slaves were made to do the hardest and most unpleasant work. Above the thralls were the freeman. A freeman could be quite wealthy or very poor depending on how much land he owned. Above them were the nobles or jarls.

Norway from the Middle Ages to 19th Century

Following a long series of civil wars, peace and stability returned under Haakon IV (1217-1263). Norway recovered and annexed both Iceland and Greenland. In 1266, realizing that it wasn't feasible to defend the Hebridges against attacks from Scotland, Norway sold the Hebridges and the Isle of Man to the Scottish king. The Shetlands and Orkneys were

given to Scotland in 1468. In 1319 Norway was temporarily united with Sweden until 1355. Meanwhile in 1349-1350, the black death struck Norway and devastated the country and probably killed half of the population. In the late 14th century, Norway was joined to both Denmark and Sweden. Sweden broke away in 1523 but Norway remained with Denmark until 1814.

Norway in the 17th and 18th Centuries

In the 1530's the Reformation reached Norway and the Norwegians followed the Danes in accepting Luthern doctrines. During the following centuries, trade and commerce grew along with the towns. In the 17th century Norway exported fish, timber, iron ore, and copper. By the 18th century, iron works were founded in southern Norway. During this time the Norwegian merchant navy also grew considerably. While trade and industry were growing in the 18th century it should not be exaggerated, the majority of Norwegians were still farmers and fishermen.

Norway in the 19th Century

In 1813, Swedish forces invaded Denmark and in 1814 Denmark was forced to surrender Norway to Sweden. Some Norwegians led by Crown Prince Christian Frederick rebelled. On May 14,1814 the Norwegian assembly drew up a constitution and Christian Frederick was elected king. In July 1814, Sweden invaded Norway. Christian Frederick stepped down and the Norwegians accepted the Swedish king. While the Swedish king controlled foreign affairs, Norway was allowed a considerable amount of autonomy.

Despite the founding of the Bank of Norway in 1816 and abolishing Norwegian nobility in 1821, the years after 1815 were ones of economic hardship. This was partly because the British timber market was lost to Canada.

Improvement was seen from the 1840's forward. By the late 19th century, Norwegian agriculture and its timber industry flourished. The Norwegian merchant fleet grew and by the end of the century, it was the third largest in the world after the United States and England.

Nationalism also grew in the 19th century. In 1882 the Norwegian parliament or Storting passed a law which stated that members of the government must take part in debates in the Storting. The Storting passed the law three times but each time the Swedish king Oscar II vetoed it. Eventually the Norwegians decided to impeach the entire government. In 1884, they were impeached, convicted, and forced to resign. The king was forced to give in and from then on Norway was a parliamentary democracy. In 1898 all men, except those receiving poor relief, were given right to vote.

However it wasn't until 1905 that Norway received its independence. The Norwegians demanded a separate consular service but the Swedes refused. The Storting took unilateral action. It passed a law creating a Norwegian consular service which the Swedish king vetoed. The Norwegian government then resigned. The Swedish king could not form a new government. In June 1905, the politician Christian Michelsen argued that the Swedish king had effectively abdicated by failing to appoint a new government and was no longer acting as king of Norway. The Storting declared that the union with Sweden was dissolved. On August 13, 1905 the Norwegians voted in a referendum and approved independence for Norway.

Negotiations were held with Sweden and the Swedish king formally gave up all claims to the Norwegian throne on October 26,1905. By a referendum on November 12-13, 1905, the Norwegian people voted for a monarchy and Prince Carl of Denmark became King Haakon VII.

After independence, the Norwegian economy prospered. Women were given the vote in local elections in 1907 and in national elections in 1913.

Family Coming Together

My maternal gene pool can be grouped as follows:

	GENE POOL DISTRIBUTION Maternal: Sicily-Calabria			
Germanic Origins:	Norway, Iceland	12.40%		
	Krasnoyarsk-W Siberia	11.00%		
	Orkney Islands	10.30%		
			33.70%	
Early Migration:	Tuva - South Siberia	7.60%		
	SE India	4.70%		
	N India	4.10%		
			16.40%	50.10%

Comment on the Western Siberia Connection

The modern European gene pool can be attributed to the mixture of three ancient populations within the last 7000 years. Blue-eyed hunters mingled with brown-eyed, pale skinned farmers who came into Europe from the Near East. Then there is a mysterious population with Siberian affinities that also contributed to the genetic profile of Europe. These findings were based on the analysis of nine ancient Europeans: seven hunter gathers from Scandinavia, one hunter whose remains were found in a cave in Luxembourg, and an early farmer from Stuttgart, Germany.

Of interest here is the mysterious Siberian connection. Referenced as Ancient North Eurasians, they came from Siberia at most 7000 years ago. They settled in southern refuges during the Ice Age and then expanded during the Mesolithic period after the ice sheets retreated from central and northern Europe.

While they can not be identified with any specific modern group of people, their genes are found in current Europeans. This occurs to a greater extent in the north and east than the south.

The Silk Road – a link to India

The Silk Road is a network of ancient trade routes connecting Asia, Europe, and Africa. The route, which extends more than 4,040 miles, was mostly used to transport Chinese Silk to Europe through Central Asia from 2nd Century BC. However, many of the trade routes, both sea and land, existed in much earlier times. Trade was in different commodities ranging from salt to gold. Silk Route's greatest contribution to world history was not mere trading of a few commodities but exchange of ideas, art and science between Asia, Europe and Africa. It was could be considered the world's first information superhighway.

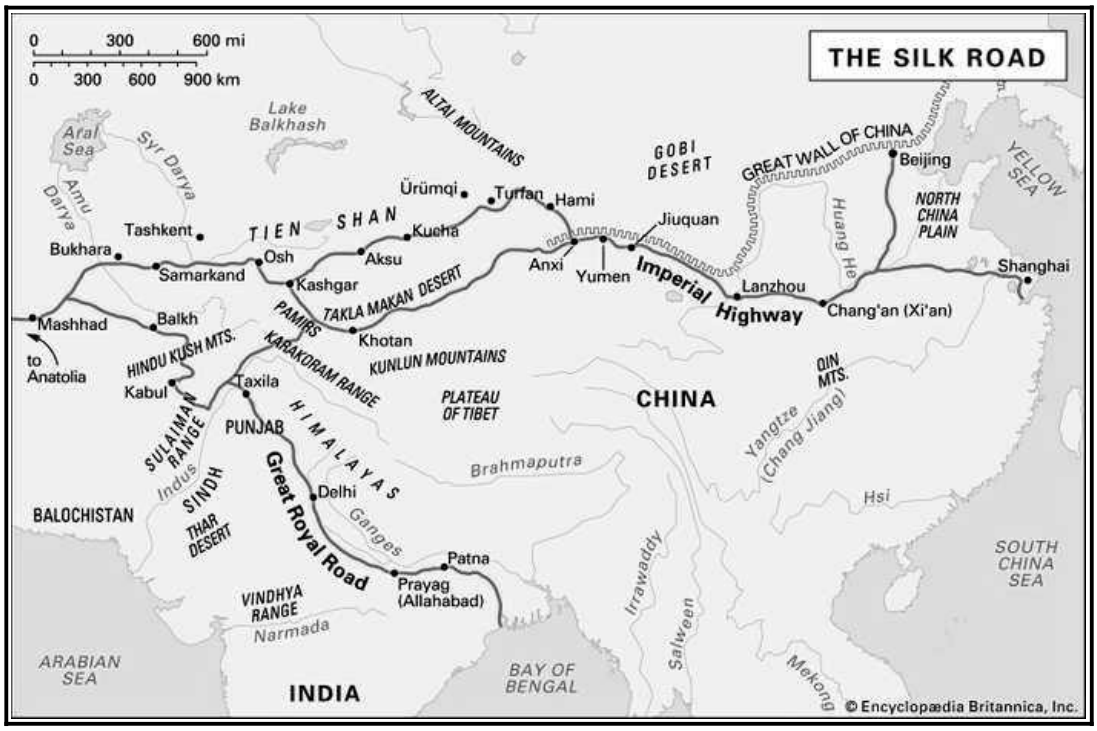
Greek art from Europe flowed into India whereas Buddhism from India reached out to the world through the Silk Route. Chinese travelers visited India through these ancient routes and Marco Polo witnessed the grandeur of the Chinese civilization while traveling through

the Silk Route. The Arabs took the knowledge of mathematics and medicine from India and China and worked on it to bring up new sciences like Algebra, which were adopted by Europe in due course. New cities and empires grew along the Silk Route and world power shifted from hand to hand. History of the world was reshaped along this route and world population for the first time started exchanging ideas on a scale that was unheard of at the time. The habits, cultures and livelihoods of the world population were influenced by knowledge and ideas brought from different lands. Obscure cities like Lhasa became the seat of religious power and emerged as one of the finest cities in the remotest corners of the Himalayas. The advent of the Silk Route is one the most remarkable events in world history. Almost all Ancient Trade routes across Asia and Europe merged with the Silk Route at some point and the whole network of trade routes became the world's first international cultural phenomenon.

While many different kinds of merchandise traveled along the Silk Road, the name comes from the popularity of Chinese silk with the west, especially Rome. The Silk Road routes stretched from China through India, Asia Minor, up throughout Mesopotamia, to Egypt, the African continent, Greece, Rome, and Britain.

The greatest value of the Silk Road was the exchange of culture. Art, religion, philosophy, technology, language, science, architecture, and every other element of civilization was exchanged along these routes along with the commercial goods the merchants traded from country to country. However, disease also traveled along this network, as evidenced in the spread of the bubonic plague of 542 which is thought to have arrived in Constantinople by way of the Silk Road. The plague decimated the Byzantine Empire.

The closing of the Silk Road forced merchants to take to the sea, thus leading to worldwide interaction and the beginning of a global community. In its time, the Silk Road served to broaden people's understanding of the world they lived in but its closure would propel Europeans across the ocean to explore, and eventually make an impact on the New World of the Americas. In this way, the Silk Road can be said to have established the groundwork for the development of the modern world.



Surname Profile

In my direct family line twenty-five distinct surnames were found that span five to eight generations.

MANERA	CRASTI PIDARELLO	BIAFORE	TARSITANO
Manera	Crasti Pidarello	Biafore	Tarsitano
Conti Nibali	Russo Madone	Cipparrone	Luise
D'Agostino	Calamungi Manitta	Boccaccio	Rota
Trisciari	Galanti	DeMarco	Quintieri
Germania Pruiti	Galanti Rando	Bianco	Caputo
	Pitrunaci	Locanto	Lopez
			Scaglione
			Coco

A maternal surname analysis did not turn out as successfully as the paternal surname. Either individually or in combination, very little information was found as to the origin of each surname. So it is not possible to confirm the Gene Pool allocation with surname information.

Manera

However, Manera is a Frankish name comprised of the parts: Magi- (meaning strength or might) and -hari (meaning army). In Italy, it may also be a toponymic name from either one of the two provinces, Cuneo or Como, with towns named Manera. Thoughts on the source of the surname vary. Or it could be an occupational name from the dialect word "manera", meaning cleaver, or the adjective "manero", meaning well behaved or skilled. It is also said to have originated in Italy during medieval times and is derived from the Italian word "maniera," which means manner or way. In this context it is believed to have initially been a nickname given to someone who had a distinctive way of carrying themselves or a particular manner of behavior.

One of the earliest recorded instances of the name Manera comes from a 13th-century document in the Tuscan region of Italy, where a certain Giovanni Manera was mentioned as a landowner. This suggests that the name had already become established as a surname by that time. In the 14th century, the Manera family was mentioned in records from the city of Siena, where they were involved in the wool trade. One notable member of this family was Bartolomeo Manera (1328-1391), a prominent merchant and banker who played a significant role in the city's economic affairs.

In Sicily, the earliest Manera reference was in the nearby village of Ucria, Messina, Sicily. Ucria may be a derivation of the Greek word onchria, meaning rust of forage. The village was controlled by the Romans in 242 BC but was later destroyed by the Arabs. It wasn't until the 11th century when under control of the Normans did the village begin to flourish.

According to both the International Genealogical Index and ancestral file data on FamilySearch.org, Maneras were in Ucria as early as the late 1500's. Cesar Manera (abt 1581) was born in Ucria and married Catirinella in about 1602 in Ucria. They had six children: Victoria (21 Sep 1603), Blasius Joseph (5 Jul 1605), Antonio (14 Mar 1609), Sebastiano (11 Mar 1611), Antonello (27 Apr 1614), and Minichella (24 May 1618). Although explicit descendants of Cesar were not traceable, ancestral files showed Maneras in Ucria through to the late 1800's. It is not know if the ancestors of the Castell'Umberto Manera family were from Ucria or nearby Tortorici; or perhaps the other way around.

In total, the Manera surname is found in about 373 communities, mostly in northern Italy with a smaller concentration in Sicily. In northern Italy there are clusters in the Piedmont and Lombardia areas. While in Sicily, the Manera surname is concentrated in Castell'Umberto, Messina province. There are also several variations of the name, such as Maneri or Manero. Could the Frankish interpretation of the Manera surname imply that they were were in Sicily during the time of the Normans, who were also descendants of the Franks, perhaps to defend the strategic pass from the Tyrrhenian Sea to the Ionian Sea?

The use of double surnames can be found in Northern Italy, especially in the small villages, and the town of Castell'Umberto in Sicily. This practice came about for the simple reason that they all had the same first surname. The second surname was usually derived from a nickname given in the past to distinguish one family from another. To avoid homonyms, the second surname could have been the maternal surname. These double surnames very often became official. If the double surnames did become official, they weren't used all the time. Records show that an individual could be know as both or either surname.

Crasti Pidarello

Crasti Pidarello is a rare double surname. This may be a case were the second surname refers to a nickname to distinguish one family from the other. For example, Pidarello could be translated as meaning small feet.

As a double surname it was found in one community in the Piedmont region of Northern Italy. Individually, Crasti was a little more prevalent throughout Italy. It was found in 23 communities mostly in northern and central Italy with at least one community in Sicily. If Pidarello was a nickname, as expected, it was not found used singularly in Italy. The double surname Crasti Pidarello traces a specific family line.

Biafore

Biafore may also be spelled Biafora. Biafore was found in 13 communities with the concentration in the Calabria region. Biafora was more prevalent and found in 46 communities with concentrations in the Lombardia region in Northern Italy and Calabria in Southern Italy.

It is assumed that the Biafore surname is a variation of Biafora. For some reason, this occurred only in the Calabria region. Like in Castell'Umberto, it appears that the descendants of the original settlers are still living in Pietrafitta.

Tarsitano

Although not as rare a surname as Biafore, Tarsitano is still not considered a common surname. It was found in 79 communities throughout Italy. The largest concentration was in the Calabria region in Southern Italy. While Biafore appears to be more concentrated in Pietrafitta, Tarsitano was more spread-out in the province. Note that Tarsitano also occurred in the northern Piedmont and Lombardia regions.

A note on the Lopez surname. While typically Spanish, the surname appears in 447 Italian communities. The largest concentrations are in Lombardia, Lazio, Puglia, and Calabria. It was originally a patronymic, meaning "Son of Lope", where Lope is derived from Latin meaning "wolf". The surname was first found in Old Castile where the name

originated in Visigoth times. But the name itself is not classified as of Germanic origin. The Visigoths were one of two main branches of the East Germanic tribe known as Goths. The other tribe is the Ostrogoths. The Goths were among the Germanic people who sacked of Rome in 410.

Conclusions

These insights do allow some verification of the gene pool distribution. Of the thirty separate direct family surnames, there was no evidence of individuals in Italy or Sicily for four of the surnames. Of course spellings may have changed. They were Pidarello, Pitrunaci, Quintieri, and Scaglione. There were four additional surnames with individuals through out all of Italy and Sicily. These were Conti, Russo, Galanti, and Bianco. For the remaining twenty-two separate surnames, while occurrences may have been throughout Italy, they showed most concentrations in the northern and southern areas. For Nibali, Germania, Crasti, Madone, Cipparrone, and Locanto, the distributions were more sparse than the other sixteen.

These geographic distributions link the north and south. It follows the pattern of the Germanic conquest and migration to both southern Italy and Sicily. Not finding early origins of most of the surnames outside of Italy speaks to the commitment and integration of the early migrations. This may be especially true for the Calabria region. Surnames were uncommon before the 12th century and still somewhat rare into the 13th century which could be another reason why non-Italian origin references were not found for early explorers. Southern Italy can be considered an ancient Mediterranean melting pot of various cultures.

While I would have liked to have uncovered conclusive evidence, matching individual surnames to Germanic origins has probably been lost over time. That may also be true for those settlers from the early migration route.

My maternal grandfather emigrated from Sicily and my maternal grandmother emigrated from Calabria. They met in Philadelphia, Pennsylvania. It is interesting that with diverse journeys they both have a connection to the Germanic tribes from Scandinavia. It appears that one is through the Franks and the other through the Normans and Lombards. Since the Germanic tribes crossed paths throughout Europe, it probably is fitting that so did the paths of my grandparents.

CRI GENETICS

The possibility of learning additional information about my ancestors led me to Cellular Research Institute Genetics or CRI Genetics. CRI Genetics was founded in 2016 by Alexi Fedorov. Dr. Fedorov studied under Walter Gilbert, a Harvard professor and Nobel Laureate working on DNA sequencing. The team at CRI Genetics has been studying DNA for more than 35 years to provide the most accurate estimation of your BioGeographical Ancestry. BioGeographical Ancestry provides a description of your place in the evolutionary and geographical history of our species. It's just a breakdown of where your genes come from based on the results of your DNA tests.

They combine Genetics, Anthropology, and Social Sciences to trace migration. Their tests examine 642,824 specific markers. These markers are hand picked based on the latest breakthroughs and advancements in genetic science with relevance to tracing ancestry. By observing patterns, knowing history, and using statistics, their results are usually 99.9% accurate. Besides ancestry, I also opted for a mitochondrial DNA test to trace my mother's ancestors.

Besides studying DNA patterns from multiple populations and then compare and contrast differences, the scientists at CRI Genetics also use customer surveys, where individuals share some details about their family history, to improve their DNA algorithms. CRI Genetics did reference one large-scale genetic study that almost all DNA testing companies use to some extent. The referenced study was the 2008 International 1000 Genomes Project. From 3130 individual DNA samples, the twenty-five populations identified in this study are as follows:

African Ancestry in SW USA (ASW)
African Caribbean in Barbados (ACB)
Bengali in Bangladesh (BEB)
British from England and Scotland (GBR)
Chinese Dai in Xishuangbanna, China (CDX)
Colombian in Medellin, Columbia (CLM)
Esan in Nigeria (ESN)
Finnish in Finland (FIN)
Gambian in Western Division – Mandinka (GWD)
Gujarati Indians in Houston, Texas USA (GIH)
Han Chinese in Beijing, China (CHB)
Han Chinese South (CHS)
Iberian Populations in Spain (IBS)
Indian Telugu in the UK (ITU)
Japanese in Tokyo, Japan (JPT)
Kinh in Ho Chi Minh City, Vietnam (KHV)
Luhya in Webuye, Kenya (LWK)
Mende in Siera Leone (MLS)
Mexican Ancestry in Los Angeles, CA USA (MXL)
Peruvian in Lima Peru (PEL)
Puerto Rican in Puerto Rico (PUR)
Punjabi in Lahore Pakistan (PJL)
Sri Lankan in Tamil in the UK (STU)
Toscani in Italia (TSI)
Yorba in Ibadan, Nigeria (YRI)

In summary, my DNA analysis is the result of comparing my DNA to all other samples that CRI Genetics has access to and identifying patterns that are known to be connected to various regions. Also considered are mass migrations throughout history that affected genetic patterns. The majority of their algorithm is still based on comparing, contrasting, and matching those patterns. Some regions, such as Northwestern Europe, have so much genetic overlap due to wars, disease, and economic trade that is it very difficult to distinguish individual countries from each other. They don't even list some countries in their ancestry results because their genetic patterns are the same as others such as Belgium and France or Austria and Germany.

However, based on their approach, CRI Genetics results for my DNA showed broader gene pool origins for European ancestors than GPS Origins. But they did show more specific breakdowns for advanced early ancestry origins from Asia, Africa, and Mixed American. They also did provide background information for each gene pool but did not delve into migratory patterns.

Recent Ancestry Analysis

The recent ancestry analysis represents my last five generations.

ORIGIN	%	COMPOSITION
European		
Italy	65.5	largest impact from Greece and Turkey
Germany	12.8	Germanic cultures from Scandinavia
Greece	6.2	One of earliest contributors
Jewish	5.4	Migrate to Middle East, N Africa, India, China
Southern Central Slavic	5.1	Balkan- Bulgaria, Croatia, Serbia
Spain	2.9	Celtic, Phoenician, Greek, Carthaginian, Germanic, Islamic Moors
East Asian		
Han Chinese*	2.1	Make up world largest ethnic group, North-Siberia and Eurasia, South- S Asia

These results are somewhat surprising. I don't believe that the Han Chinese influence is among the last five generations. That would imply that at least one ancestor in the last five generations is of Han Chinese descent which doesn't match my own genealogical research. However, it is possible for very early advanced ancestry analysis.

--→ * I contacted CRI Genetics for clarification. They confirmed that it does appear in the fifth generation but it does not necessarily imply that person was pure Chinese but that they had Chinese heritage which affected their DNA break down. This makes sense; It could be from an advanced ancestral individual whose DNA appears in my fifth generation.

Although I can't specifically confirm details for the broad European categories, results from CRI Genetics appear to be consistent with GPS Origins.

Advanced Ancestry Analysis

This analysis dates back thousands of years. My DNA was compared to reference populations that were discovered and genotyped from all over the world. They factor in the known history of human migration over several thousand years before assigning them to my DNA.

This appears to be the strong point for CRI Genetics. Again, the European gene pool origins showed a much broader grouping than earlier origins. While background information was provided for each gene pool, there was no discussion as to how migration patterns fit into the analysis.

My advanced ancestry analysis, including those geographical regions with the same genotype, is as follows:

GENE POOL	PERCENTAGE
European	**81.7**
Toscani Italian	**22.3**
North influenced by French and German while south influenced by Balkan and Greek	
Italy, Monaco, Slovenia	
Greece, Albania, Turkey, Bulgaria, Croatia, Serbia	
Iberian	**15.8**
Influenced by Celtic, Phoenician, Greek, Carthaginian, Germanic, Islam Moors	
Spain, Portugal, Andorra	
Morocco, Algeria	
Northern European	**15.2**
Stretches through Scandinavia – Germanic tribes	
Norway, Finland, Sweden, Denmark	
Russia, Ukraine, Kalinigrad, Estonia, Lativia	
Poland, Lithuania, Belarus	
British Isles	**15.1**
Influence by Celtic tribes along with Viking and Norman	
England, Scotland, Ireland, Wales	
Norway, Sweden, Denmark	
France, Netherlands, Belgium, Germany	
Northwestern European	**13.3**
from Atlantic and Mediterranean coasts of France to the eastern edge of Germany and northern tip of Finland	
Norway, Sweden, Denmark	
France, Netherlands, Belgium, Germany	
Slovakia, Hungary, Luxembourg, Kalinigrad	

GENE POOL	PERCENTAGE
South Asia	**10.1**
Punjabi	**4.0**
Eastern Pakistan and Northern India Means “the land of the five waters”	
Gujarati Indian	**2.2**
Northwest India, known as merchants, seafaring	
Bengali	**2.0**
Southern Asia bordered by the Bay of Bengal, Burma to the east, and India to the east, north, and west Bangladesh, India, Pakistan, Saudi Arabia	
Sri Lankan Tamil	**1.9**
Descended from Jaffna Kingdom which controlled Northern part of Sri Lanka for centuries before the arrival of European colonists Sri Lanka, India	
AdMixed American	**5.8**
Puerto Rican	**2.1**
Heritage 61% Taino (Am Indian) rest African, Spanish French, Jewish	
Peruvian	**2.0**
Influence Spanish	
Columbian	**1.5**
Heritage 65% European, 22% Indigenous, 13% African	
Mexican	**0.2**
Influence Spanish, Also American Indian	
East Asian	**1.6**
Chinese Dai	**0.7**
Typically farmers in Southern China	
Japanese	**0.5**
Influence Chinese and Korean	
Kinh Vietnamese	**0.2**
Maybe descendants of Hun Chinese invaders	
Southern Han Chinese	**0.1**
Influence Asia	
Northern Han Chinese	**0.1**
Influence Ural-Altalic from Siberia and central Eurasia	

GENE POOL	PERCENTAGE
African	**0.7**
Esan in Nigeria	**0.4**
Traced to Benin Empire in Southern region	
Meaning "to have fled"	
Mende in Sierra Leone	**0.2**
Live in Southern and Eastern Sierra Leone	
Portuguese arrived in 15th century	
African American	**0.1**
Generally from West Africa	
Heritage 70-85% West Africa and 15-25% European	

Gene Pool Allocation

As a first look, the following is a proposed allocation of general gene pool origins between my parents.

PATERNAL		MATERNAL	
Toscani Italian	22.30	Northern Europe	15.20
Iberian	15.80	British Isles	15.10
AdMixed American	5.80	NW Europe	13.30
African	0.70	South Asia	10.10
	44.60%	East Asia	1.60
			55.30%

Without more detail, some of the origins are difficult to confirm. However, the overall first look is quite similar to GPS Origins. GPS Origins showed a 44.70% paternal allocation with a maternal allocation of 55.40%.

Before going into more detail with a comparison of the two DNA results, CRI Genetics also provided an advanced ancestry timeline.

Advanced Ancestry Timeline

The advanced ancestry timeline analyzes your entire DNA sequence to determine both your ancestral history and complete timeline. The further back you go, the more centralize the ancestral timelines become since there is less likely to be cultural crossbreeding due in part to geological landscapes, environmental obstacles, and technological obstacles. Thus cultures are left bounded by deterrents such as the Ice Age, glacial periods, and the overall inability to travel.

Some of these ancestries may seem totally foreign but the team only lists ancestries they believe there is an 80% or greater confidence level to be featured in the timeline.

With that said, the following are the results of my ancestry timeline. The table shows, by generation, the estimated year that one of my ancestors lived. An "X" indicates the gene pool to which that ancestor belongs.

Gen	Est Yr	NW Eur	Brit Isle	Tos It	N Eur	Iber	Guj Ind	Punj	Sri Lan	Beng	Peru	Puer Rico	Colum	Esan	S Han
		Main Family Ancestry													
4	1900	-	-	-	-	-	-	-	-	-	X	-	-	-	-
5	1875	X	X	X	-	-	-	-	-	-	X	-	-	-	X
6	1850	-	X	-	-	-	-	-	-	-	-	-	-	-	-
7	1825	X	X	-	X	-	-	-	-	-	-	-	-	-	-
8	1800	X	-	X	X	-	-	-	-	-	-	-	-	-	-
9	1775	X	X	X	X	X	-	-	-	-	-	-	-	-	-
10	1750	-	-	X	X	-	-	-	-	-	-	-	-	-	-
11	1725	X	X	X	-	X	-	-	-	-	-	-	-	-	-
							Secondary Influences Through Marriages								
12	1700	X	X	X	X	X	X	-	-	-	-	X	X	-	-
13	1675	X	X	X	-	X	-	X	-	-	-	-	-	-	-
14	1650	X	-	X	-	X	X	-	X	X	-	X	-	X	-
15	1625	X	X	X	X	X	-	-	-	-	-	-	-	-	-
16	1600	X	X	-	-	X	-	-	-	-	-	-	-	-	-
17	1575	-	X	-	-	-	-	-	-	-	-	-	-	-	-
18	1550	X	X	-	-	X	-	-	-	-	-	-	-	-	-
20	1500	-	-	-	-	X	-	-	-	-	-	-	-	-	-
23	1425	-	-	-	-	X	-	-	-	-	-	-	-	-	-
24	1400	-	-	-	-	X	-	-	-	-	-	-	-	-	-
25															
26	1350	-	-	X	-	-	-	-	-	-	-	-	-	-	-
34	1150	-	-	-	-	-	-	-	-	-	X	-	-	-	-
43	925	-	-	X	-	-	-	-	-	-	-	-	-	-	-

Several findings stand out. First of all is the confirmation of the main ancestral lines of my parent and grandparents. While CRI Genetics results are somewhat general, analysis from GPS Origins can fill in the details. Secondary influences are somewhat consistent with GPS Origins.

The results that I don't specifically believe are highlighted. They are the 4th and 5th generation findings for Peru and S Han Chinese. I expect they had secondary influences but from the research I uncovered, there are no direct Peruvian or Chinese influences from 1850-1875. But as pointed out before, these findings do not necessarily imply that person was pure Peruvian or Chinese but that they had that heritage which affected their DNA break down. Also the direct secondary influences through marriage most likely occurred before 1600 which implies they also represent heritage from earlier gene pools.

I should re-iterate that CRI Genetics examine 642,824 specific markers that are hand picked based on the latest breakthroughs and advancements in genetic science with relevance to tracing ancestry. So, statistically the results of those markers are projected to gene pool percentages. In some cases their influence may be overstated in the final analysis. Statistical results are not 100% accurate.

Before finalizing a comparison of GPS Origins and CRI Genetics there is one more report to consider.

Mitochondrial DNA Analysis

An Analysis of mtDNA identifies the ancient maternal lineage to which my mother's family line belongs. I had CRI Genetics analysis my mtDNA to clarify my maternal secondary influences.

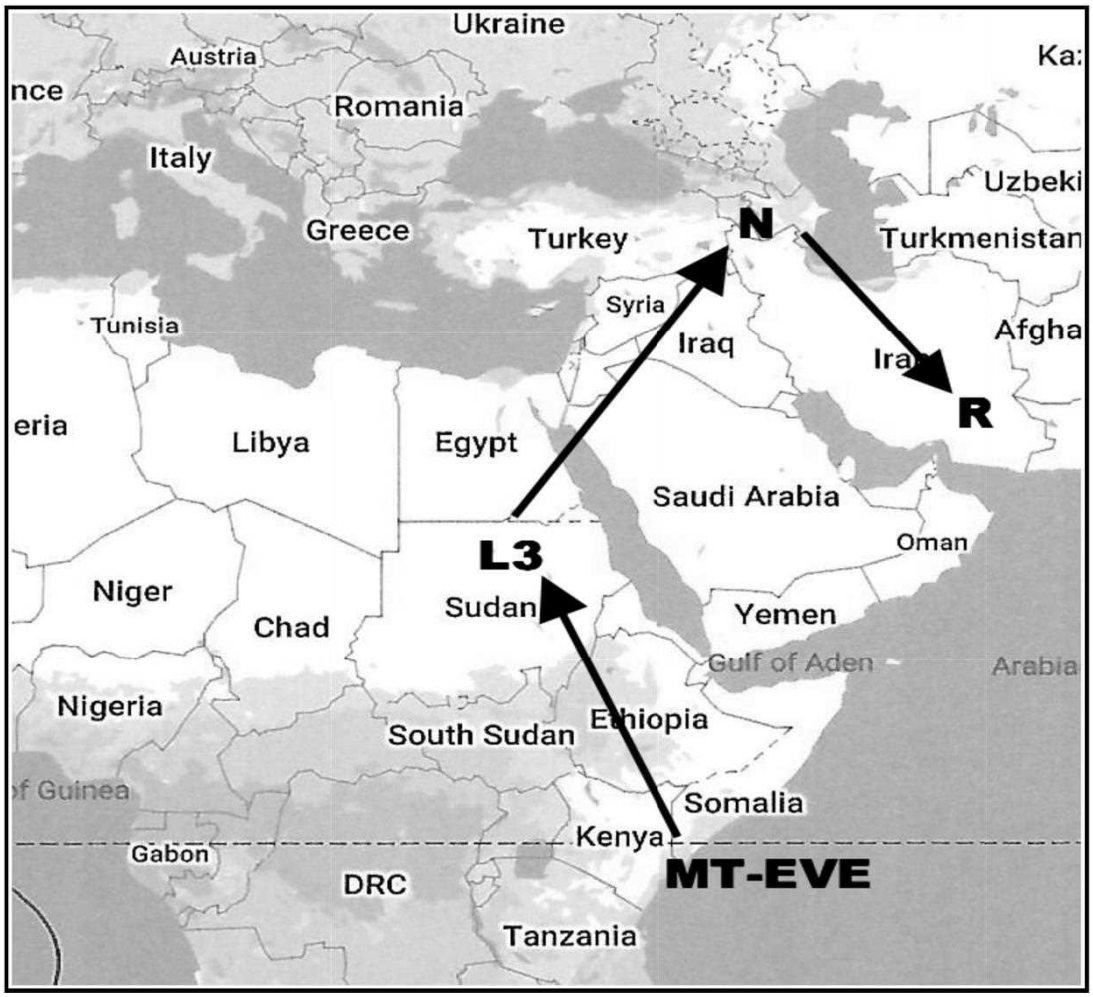
I belong to **Haplogroup R**. Haplogroup R is one of the oldest still existing haplogroups. It originated 66,800 years ago in India or South Asia and is a major descendant of Haplogroup N. It's lineage in India points to a common first spread along the southern route about 60,000-70,000 years ago and spread out to Eurasia and Australia. The ancestors for this haplogroup originated from the region of Iran.

Haplogroup R can be considered a Macro-Haplogroup with several branches that are distributed all over Europe, North Africa, the Near East, the Indian Subcontinent, Oceania, and the Americas, specifically non-Africans.

Haplogroup N is believed to have originated about 71,000 years ago in the region of Armenia. It's unclear as to whether the point of origin is Asia or East Africa. Nonetheless, this one of the main haplogroups that define the theory of African origin of modern humans and early human migrations around the world.

That leads back to **Haplogroup L3**. All modern humans outside of Africa come from Haplogroup L3. It's thought to have originated 84,000 to 104,000 years ago in the Sudan region and it's most common in East Africa.

Mitochondrial Eve or the last living group to match her genetic makeup lived in East Africa about 150,000 to 170,000 years ago. It's thought to have originated in the region of Kenya. This group is limited to East Africa and is believed to be the root of all shared maternal lineage.



These results confirmed my maternal migration from SE India and N India. My mitochondrial DNA traces back through the Armenia, Sudan and Kenya regions.

The Haplogroup R has generated the six most common European haplogroups – H, V, J, T, U, and K – along with one Asian/Native American Haplogroup B. However, the analysis doesn't indicate any association with any of these branches.

I've had some questions answered but am still left with others.

GPS ORIGINS vs CRI GENETICS

Taking into account the gene pool definitions for each company and geography, a side by side comparison is as follows:

Paternal Gene Pool Analysis

GPS Origins		CRI Genetics	
Southern France	12.50%	Toscani Italian	22.30%
Southern Levant	3.10%		
Sardinian (50%)	6.60%		
	22.20%		
Basque Country	8.30%	Iberian	15.80%
Sardinian (50%)	6.60%		
	14.90%		
		South Asia:	
Arabia	2.80%	Bengali (70%)	1.40%
SE India (35%)	2.50%	Gujarati Indian	2.20%
	5.30%	Tamil - Sri Lanka	1.90%
			5.5%
Western South America	0.9%	Peruvian	2.00%
		Mexican	0.20%
		African American	0.10%
			2.30%
Northwestern Africa	6.70%	Esan in Nigeria	0.40%
		Mende in Sierra Leone	0.20%
		Columbian	1.50%
		Puerto Rican	2.10%
			4.20%
	50.00%		50.10%

Between the two analyses, my father's main family ancestry is right on target. The sources of secondary influences show the largest discrepancies. It appears South America and Africa are defined differently. The combined contribution is 7.6% vs 6.5% respectively. The Peruvian influence may be overstated and it's not clear whether the Columbian and Puerto Rican gene pools are through Spanish explorers. Also, North Africa may have had a larger influence on Sicily than shown in the CRI Genetics analysis. These differences could all be a matter of timeline.

Maternal Gene Pool Analysis

GPS Origins		CRI Genetics	
Fennoscandia	12.40%	NW Europe	13.30%
Orkney Islands	10.30%	British Isles	15.10%
Western Siberia	11.00%	Northern Europe	15.20%
Tuva	7.60%		43.60%
	41.30%		
		South Asia:	
Northern India	4.10%	Punjabi	4.00%
SE India (65%)	4.70%	Bengali (30%)	0.60%
	8.80%		4.60%
		East Asia:	
		Chinese Dai	0.70%
		Japanese	0.50%
		Kinh Vietnamese	0.20%
		North Han Chinese	0.10%
		South Han Chinese	0.10%
			1.60%
	50.10%		49.80%

Again, between the two analyses, my mother's main family ancestry is right on target. The sources of secondary influences show the largest discrepancies. My Mitochondrial DNA analysis shows a maternal family line through the East Africa to the Middle East. Over time, these influences may have been integrated with South Asia. I can also attribute the East Asian (1.6%) influence from CRI Genetics to travel along the ancient Silk Route from China to Asia and Europe. Comparing the two analyses, this percentage may seem high unless you account for timeline differences and recombination of DNA results.

Conclusions

While the main family lineage is clearly defined and verified by both analyses, there are still questions as to the secondary influences that contributed to my gene pool. These differences may be explained by the timeline and target markers used in each analysis. That is not saying that one is more accurate than the other but that the percent contribution can be over or under estimated based on the testing procedure and timeline.

Statistically, a 100% match is not expected. But these differences call for a tie breaker. So I turned to FamilyTree DNA for both autosomal and mtDNA analyses. FamilyTree DNA takes a different approach than GPS Origins and CRI Genetics. They trace recent and ancient population clusters and also focus on DNA matches to "family" in their database. Hopefully this approach will provide addition information and fill some of the gaps.

FAMILY TREE DNA

Family Tree DNA uses autosomal DNA to both provide matches with relatives and an analysis of ethnic percentages. This is confined to the most recent five to six generations. Autosomal DNA is DNA from our chromosomes in the cell nucleus and generally excludes the sex chromosomes. Autosomal DNA is inherited from both parents, all four grandparents, all eight great grandparents, etc. Each time autosomal DNA passes from parent to child, it is partly mixed. This is called recombination. Recombination is random and after five to six generations you may have much less autosomal DNA from one line than another. Therefore it is possible to have relationships that do not always show up as a match. Such failures do not always disprove them.

Family Tree uses 90 reference populations from around the world to which your DNA is connected. A population cluster is grouped into overarching populations. An overarching population is a region in which one or more population cluster is found. Overarching regions in turn represent continental regions.

A Note: Genetics vs Genealogy

Each of us really has two family trees. A genealogical tree shows every ancestor in history that had a child who had a child that ultimately led to you. A genetic family tree is includes only those ancestors who gave you DNA. Based on inheritance, by the seventh generation only some of your genealogical ancestors are in your genetic family tree. At each generation, the proportion of genetic to genealogical decreases and the likelihood of inheriting a segment of DNA from a specific genealogical ancestor decreases with each generation. Also the chance of finding a match is dependent on the samples in the database.

My Recent Origins

Family Tree grouped my DNA results into four population clusters for which they highlighted the major historical and genetic events. Since each story is different, they leave each individual's path for them to decipher.

DNA POPULATION CLUSTERS		
Europe	93%	
Southern Europe		
Italian Peninsula		80%
Greece & Balkans		13%
Middle East & North Africa	7%	
Middle East		
Southern Levant		4%
Anatolia, Armenia & Mesopotamia		<3%

Family Tree provided the following narratives on each population cluster.

Italian Peninsula 80%

Hunter-Gatherers were some of the earliest inhabitants of the Italian Peninsula. By about 6000 BCE, farming communities from the Middle East migrated to the southern region of Europe and assimilated with Hunter-Gatherer groups found there. In subsequent centuries, the interactions between the ancient settlers of Italy fluctuated. War and trade were common between and among Italic peoples, Etruscans, and Indo-European Celts. Foreign groups like the Phoenicians and, later, the Greeks established settlements on the fertile coasts of Sicily and the southern part of Italy. Trade with these powerful groups was important for the dispersal of ideas, such as writing, throughout ancient Italy.

Latin peoples emerged at the forefront of the conflicts among ancient Italian peoples. By the early part of the 3rd century BCE, the Latin peoples came to dominate much of the Italian Peninsula, eventually forming the Roman Empire. Rome used a combination of the threat of force and the offer of socioeconomic benefits to incorporate other groups into their empire. Rome used the skills and knowledge of these groups to enhance their technology, furthering their goals of expanding their boundaries and consolidating power. At its height, the empire reached from the southern region of England to the Iberian coast, North Africa, and the Middle East, with Rome and the Italian Peninsula at the center. After the fall of the Western Roman Empire in the 5th century CE, Visigoths, Huns, and Ostrogoths left little remnant of Roman rule.

In the 14th and 15th centuries, a number of city-states on the Italian Peninsula developed trade networks led by powerful families. These city-states competed among one another fiercely for more wealth and power through warfare as well as diplomacy. The modern nation of Italy we know today was born in the middle of the 19th century. During a period of Italian history known as Risorgimento, most of Italy was united by 1861. By the late 19th and early 20th centuries, Italy rapidly industrialized especially in the northern region. However, most of the southern region did not industrialize as dramatically, which encouraged many Italians to migrate to the Americas. Today, Italy has abolished its monarchy and become a democratic nation recognized as a center for arts and sciences.

Greece & Balkans 13%

The Balkan Peninsula has a long history of human settlement. Stone tools, such as bladelets of the Aurignacian Hunter-Gatherer culture, date to as early as 43,000 years ago. By the Neolithic period, around 7000 BCE, the arrival of Farmers from the Middle East dramatically shifted the economy as well as the settlement patterns of the region. By the early Bronze Age, around 2800 BCE, Greece became home to several complex societies like that of the Minoan and Mycenaean civilizations. These civilizations continued to rely on farming but saw an increase in the degree of stratified social classes. By the 4th century BCE, Macedonians assumed power in the region, integrating other Indo-European peoples of the Balkans like the Thracians into their empire. Thracians were enlisted by Alexander the Great for his campaigns eastward.

The Antigonid dynasty controlled large portions of the region after the death of Alexander the Great in 323 BCE, including the majority of Greek city-states and Macedonia The Romans arrived in the northern part of the Balkan Peninsula in the pursuit of pirates. By the end of the 1st century CE, the entire peninsula was under Roman control. Romans sought to anchor and legitimize their rule over Greece by adopting its cultural traditions. The region thrived under Roman rule through which it adopted Christianity. With the fall of Rome, the Byzantine Empire assumed control of the Balkans and much of its people's livelihoods were centered around Constantinople. The Goths and Huns attempted to invade the northern part of the Byzantine Empire but had little success. During the 5th century CE, Slavic peoples from Central Europe first arrived in the Balkans establishing permanent settlements.

The Byzantine Empire came to an end in 1453 with the sacking of Constantinople by the Ottoman Empire. Ottoman Turks then spread through the Peloponnese and the Aegean regions. During the 16th century, they continued their conquests in Europe by taking control of the northern Balkans. In Greece and the Balkans, Ottoman rule lasted until the 19th century when European powers like Russia slowly gained influence over the weakening Ottoman Empire by backing the Greek movement towards independence. Russian victory in the Russo-Turkish War reduced the Ottoman Empire’s territory in the Balkans, and as a consequence, many new states like Romania and Serbia emerged.

Southern Levant 4%

The Middle East has played a crucial role in early-human migration history. It was the first place humans settled outside of Africa. The descendants of these early migration groups were Hunter-Gatherers commonly known as the Natufians, and their presence spanned throughout the Fertile Crescent. Farming is thought to have emerged gradually among Natufian communities of the southern region of Anatolia and the Levant. The earliest archaeological evidence of plant domestication from around 9000 BCE is found in

this area in such notable places such as Jericho, which is among the oldest continuously inhabited cities of the world. Later, waves of migration introduced agriculture and domesticated crops to regions that neighbor the Fertile Crescent and to Europe.

The earliest independent city-states emerged during the Early Bronze Age around 3000 to 2200 BCE. The Canaanites, as they were later known, were an urban culture indigenous to the area, and they relied on nearby agricultural villages to sustain their population. The Canaanites also formed trade routes between Egyptian kingdoms to their west and Syrian Kingdoms to their east. Archaeological evidence demonstrates that the Canaanites' cultural influence on nearby cultures of Mesopotamia, Phoenicia, Greece, and Egypt lasted until around the mid 15th century BCE when the southern Levant became a vassal state of the Neo-Egyptian kingdom. Under Egypt, the area received a continuous influx of nomadic and semi-nomadic tribes. Most notably were the Israelites who established the kingdoms of Israel and Judah around the 10th century BCE. Their kingdoms were later annexed by the Neo-Assyrian Empire around 740 BCE.

In 63 BCE, the Roman general Pompey conquered the southern Levant establishing foreign rule that continued under the Byzantine Empire and lasted until Islamic expansion to the area in 632 CE. The southern Levant and the city of Jerusalem became sacred centers to followers of the three Abrahamic religions: Judaism, Christianity, and Islam. Tensions among the denominations have led to overt conflicts, such as the crusades, as well as political alliances. The establishment of the state of Israel in 1948 has defined present tensions among the peoples of the southern Levant. Palestinians, for example, trace their roots to the many nations that have historically lived in the area, but today, their home is divided into two administratively separate regions: Gaza and the West Bank.

Anatolia, Armenia, & Mesopotamia <3%

The Middle East has played a crucial role in early-human migration history. It was the first place humans settled outside of Africa. Ancient Hunter-Gatherers developed farming techniques around 9000 BCE. They then spread out in all directions bringing their technology along with them. Around the upper Euphrates River, in modern-day Turkey, sites like Göbekli Tepe arose along with the first known farming settlements. Farther east in Mesopotamia, between the Euphrates and Tigris rivers, early complex stratified societies emerged. Around 3400 BCE, Sumerians developed pictographic writing for record keeping and trade exchange, which led to the advent of cuneiform writing and the first written historical accounts. This region is one of the four places where writing was developed. Sumerian cultural dominance was later replaced by the Akkadians around 2334 BCE. The Akkadians founded one of the first empires in history under the rule of Sargon. Around the 2nd millennium BCE, Babylon and Assyria, which were extensions of the Akkadian Empire, became kingdoms in their own right, starting an era of exchange and dominance until the rise of the first Persian Empire to the west.

Beginning in the 6th century BCE, after the fall of the Neo-Babylonian Empire, the first Persian Empire slowly incorporated the ancient kingdoms of Mesopotamia and the Iranian plateau. At its height, the empire of Cyrus the Great stretched from modern-day Turkey to the Indus Valley. It later fell in the 3rd century BCE to the Macedonian army of Alexander the Great. In the 2nd century CE, under the Sassanids, Persia once again engulfed Mesopotamia east of the Euphrates and the area of modern-day Iran with its capital at Ctesiphon. Sassanid control over Mesopotamia was ended by the Abbasid dynasty, which founded the city of Baghdad in 762 CE. Baghdad became the capital of the Abbasid

dynasty during the Islamic Golden Age and the heart of a vast empire until it was sacked by the Mongols under Genghis Khan in 1258 CE.

By the 12th century CE, Turkic tribes expanded into Anatolia as the Byzantine Empire lost major battles and territory. After which, the Turkic tribes founded the Ottoman Empire, which at its height included most parts of Mesopotamia. The Ottomans were contested by a newly formed Iranian Empire known as the Safavid dynasty in 1501 CE. The Safavid dynasty expanded its territories across the Iranian Plateau to the Caucasus and Mesopotamia. The Inhabitants of Mesopotamia were caught in the middle of these large imperial rivalries. European colonial powers took control of the former Ottoman-controlled region after World War I. This led to movements aimed at ending European control, which paved the way for the establishment of today's countries in the region. Today's inhabitants of historical Mesopotamia and Anatolia trace their ancestry to the indigenous peoples of the region and to the many ethnic groups that crossed paths here.

Before commenting on the recent origin results, results of my ancient origins will be presented.

My Ancient Origins

Family Tree compared my autosomal DNA to DNA found at archaeological dig sites throughout the European continent. They define three ancient European groups: Metal Age Invaders (Bronze Age), Farmer (Neolithic Age), and Hunter-Gathers (Mesolithic and Neolithic Eras).

ANCIENT EUROPEAN ORIGINS	
Hunter Gatherer	13%
Farmers	67%
Metal Age Invaders	20%

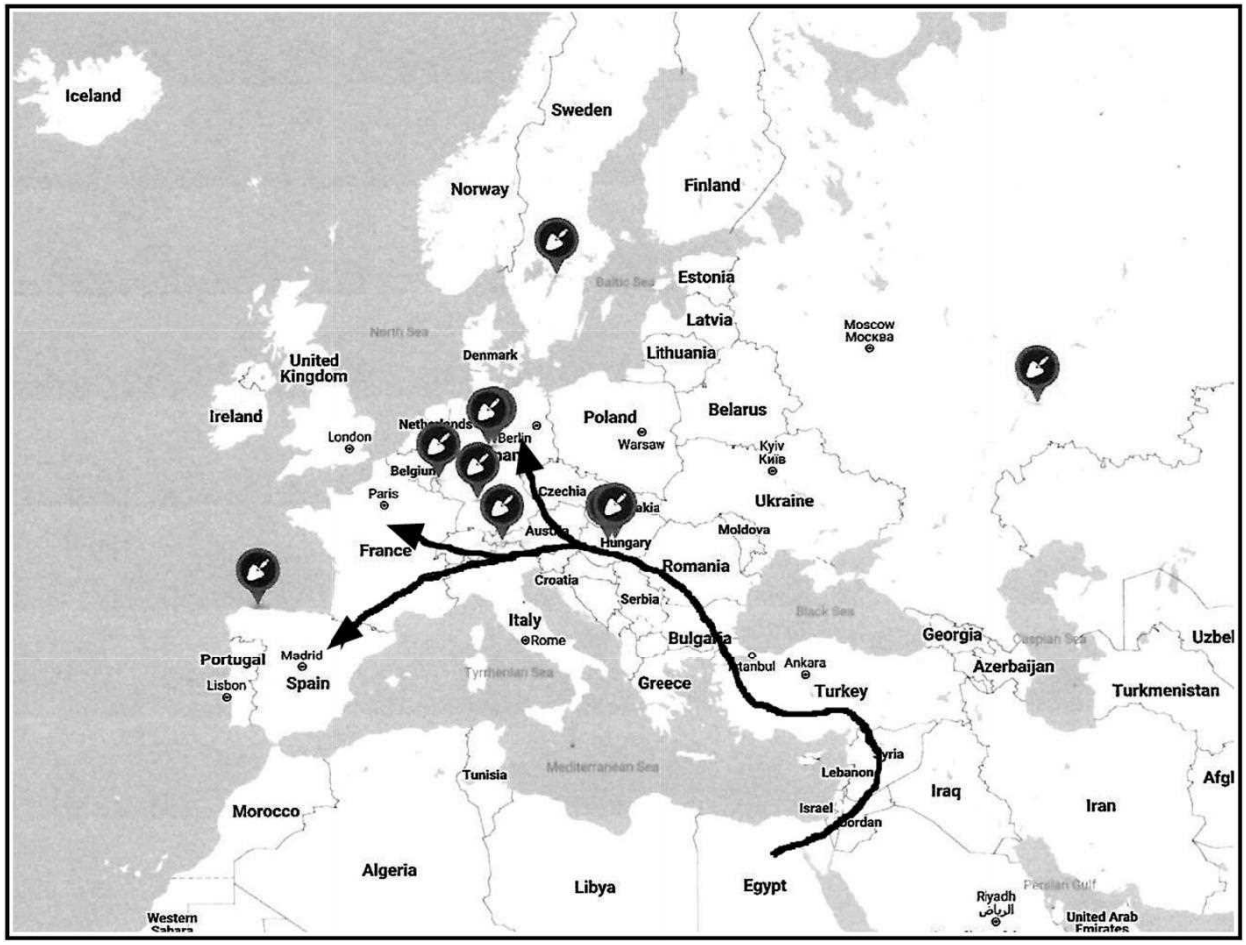
Hunter-Gatherer

Hunter-Gatherer 13%

The climate during the Pleistocene Epoch (2.6 mill – 11,700 YA) fluctuated between episodes of glaciation (or ice ages) and episodes of warming, during which glaciers would retreat. It is within this epoch that modern humans migrated into the European continent at around 45,000 years ago. These Anatomically Modern Humans (AMH) were organized into bands whose subsistence strategy relied on gathering local resources as well as hunting large herd animals as they travelled along their migration routes. Thus these ancient peoples are referred to as Hunter-Gatherers. The timing of the AMH migration into Europe happens to correspond with a warming trend on the European continent, a time when glaciers retreated and large herd animals expanded into newly available grasslands.

Evidence of hunter-gatherer habitation has been found throughout the European continent from Spain at the La Brana cave to Loschbour, Luxembourg and Motala, Sweden. The individuals found at the Loschbour and Motala sites have mitochondrial U5 or U2 haplogroups, which is typical of Hunter-Gatherers in Europe and Y-chromosome haplogroup I. These findings suggest that these maternally and paternally inherited haplogroups, respectively, were present in the population before farming populations gained dominance in the area.

Based on the DNA evidence gathered from these three sites, scientists are able to identify surviving genetic similarities between current day Northern European populations and the first AMH Hunter-Gatherers in Europe. The signal of genetic sharing between present-day populations and early Hunter-Gatherers, however, begins to become fainter as one moves further south in Europe. The hunter-gatherer subsistence strategy dominated the landscape of the European continent for thousands of years until populations that relied on farming and animal husbandry migrated into the area during the middle to late Neolithic Era around 8,000–7,000 years ago.



Loschbour – Luxembourg (~8,000 years ago)

Remains of an 8,000 year old Hunter-Gatherer were discovered at a burial site located in a rock shelter in Loschbour, Luxembourg. The remains are believed to have belonged to a male between 34 and 47 years old. Similar to the remains found

in Motala, Sweden, this Hunter-Gatherer male also belongs to the Y-chromosome haplogroup I and mitochondrial haplogroup U.

La Brana 1 – La Brana, Spain (~7,000 years ago)

Remains of a 7,000 year old Hunter-Gatherer, dubbed La Brana 1, were discovered in a cave in Northern Spain. Through analysis of DNA extracted from a tooth, La Brana 1's remains have since shed some much needed light on the Mesolithic inhabitants of ancient Europe. DNA analysis has concluded that La Brana 1 carried genes that are associated with disease resistance, thus challenging the existing belief that the emergence of these genes coincided with the arrival of later farming communities. Analysis also suggests that this Hunter-Gatherer is more closely related to modern-day Northern Europeans than to Southern Europeans who have shown greater similarity with Hunter-Gatherer remains from regions in Sweden and Siberia.

Motala – Motala, Sweden (~8,000 years ago)

Remains of seven individuals were discovered in a European Mesolithic Hunter-Gatherer burial site east of lake Vättern near modern day Motala, Sweden. All of the individuals found belonged to the mitochondrial DNA haplogroups U2 and U5, which was quite common for Hunter-Gatherers of this time period and location. These mitochondrial DNA haplogroups can still be found in modern day populations, although in much lower frequencies. Of these seven individuals, five of them were males belonging to the Y-chromosome haplogroup I, thus providing evidence that even in Mesolithic times this Y-chromosome haplogroup was common in Northern European populations.

Farmer

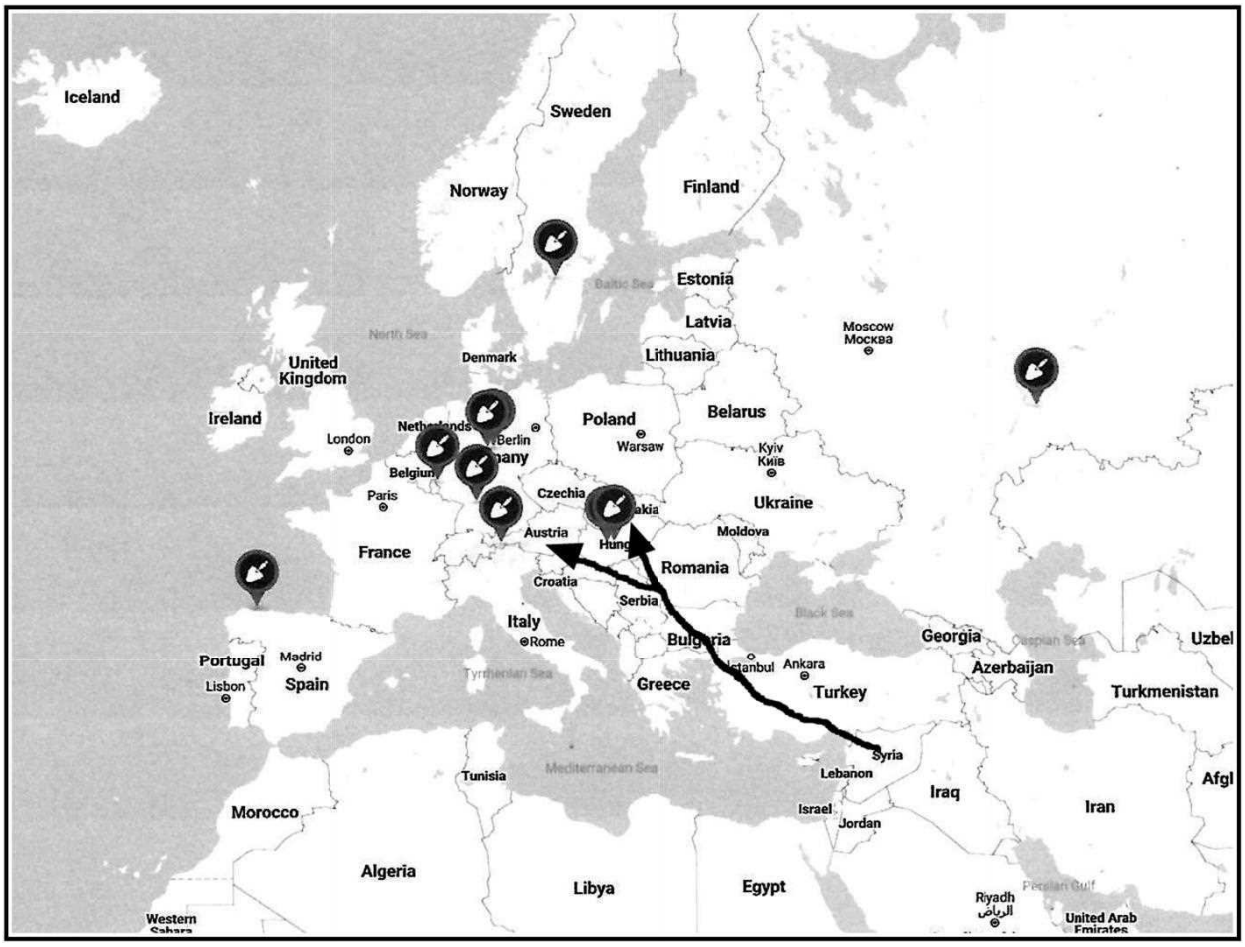
Farmer 67%

Roughly 8,000–7,000 years ago, after the last glaciation period (Ice Age), modern human farming populations began migrating into the European continent from the Near East. This migration marked the beginning of the Neolithic Era in Europe. The Neolithic Era, or New Stone Age, is aptly named as it followed the Paleolithic Era, or Old Stone Age. Tool makers during the Neolithic Era had improved on the rudimentary "standard" of tools found during the Paleolithic Era and were now creating specialized stone tools that even show evidence of having been polished and reworked. The Neolithic Era is unique in that it is the first era in which modern humans practiced a more sedentary lifestyle as their subsistence strategies relied more on stationary farming and pastoralism, further allowing for the emergence of artisan practices such as pottery making.

Farming communities are believed to have migrated into the European continent via routes along Anatolia, thereby following the temperate weather patterns of the Mediterranean. These farming groups are known to have populated areas that span from modern day Hungary, Germany, and west into Spain. Remains of the unique pottery styles and burial practices from these farming communities are found within these regions and can be attributed, in part, to artisans from the Funnel Beaker and Linear Pottery cultures. Ötzi (the Tyrolean Iceman), the well-preserved natural mummy that was found in the Alps

on the Italian/Austrian border and who lived around 3,300 BCE, is even thought to have belonged to a farming culture similar to these. However, there was not enough evidence found with him to accurately suggest to which culture he may have belonged.

Although farming populations were dispersed across the European continent, they all show clear evidence of close genetic relatedness. Evidence suggests that these farming peoples did not yet carry a tolerance for lactose in high frequencies (as the Yamnaya peoples of the later Bronze Age did); however, they did carry a salivary amylase gene, which may have allowed them to break down starches more efficiently than their hunter-gatherer forebears. Further DNA analysis has found that the Y-chromosome haplogroup G2a and mitochondrial haplogroup N1a were frequently found within the European continent during the early Neolithic Era.



Stuttgart – Germany (~5,000 years ago)

Remains discovered in Stuttgart, Germany were identified as having been from a female, likely between 22–30 years old, who was a member of a Neolithic farming community. Evidence from excavations of this site shows inhabitants from a number of different cultures throughout the ancient past, and it is not specific to only Neolithic farming communities. Artifacts, such as pottery dating to around 5,500–4,800 BCE, and evidence of ritualized burial practices suggest that at least one of the remains and inhabitants was likely from the Linearbandkeramik (LBK)

culture. The LBK culture has been identified as one of the first farming cultures in Europe, and they are known for their distinctive pottery and burial practices.

Ötzi – Swiss / Italian Alps (~5,300 years ago)

The Tyrolean Iceman, better known as Ötzi, was found in the Ötztal Mountains on the border of modern day Austria and Italy. Found with items such as a copper hand axe, dagger, and arrows typical of Copper Age burials, Ötzi is thought to be a member of a 4th millennium BCE Farming culture from, what is currently known as, South Tyrol, Austria.

Linear Pottery Cultures – Central Europe (~8,000 years ago)

Roughly 8,000 years ago Farming Cultures, such as the Linearbandkeramik (LBK), migrated from the Mediterranean Near East into the European continent. This migration moved through Greece, quickly spreading into the Balkans and arrived in Central Europe by around 5,700 years ago. Archaeological evidence of early Farming Cultures habitation has been found near rivers and lakes; suggesting that these peoples followed the fertile soils, often found along bodies of water, to build their communities. Timber longhouses, constructed from wicker like materials that were walled together with a mud plaster, were built together in loose groups to form the communities of the Farming Cultures. In addition to the unique architecture, researchers also use remains from the distinctive pottery practices to identify LBK communities. LBK pottery is unique in its use of parallel lines to form spiral designs, and designs of triangles and chevrons around bands on earthen bowls.

Metal Age Invader

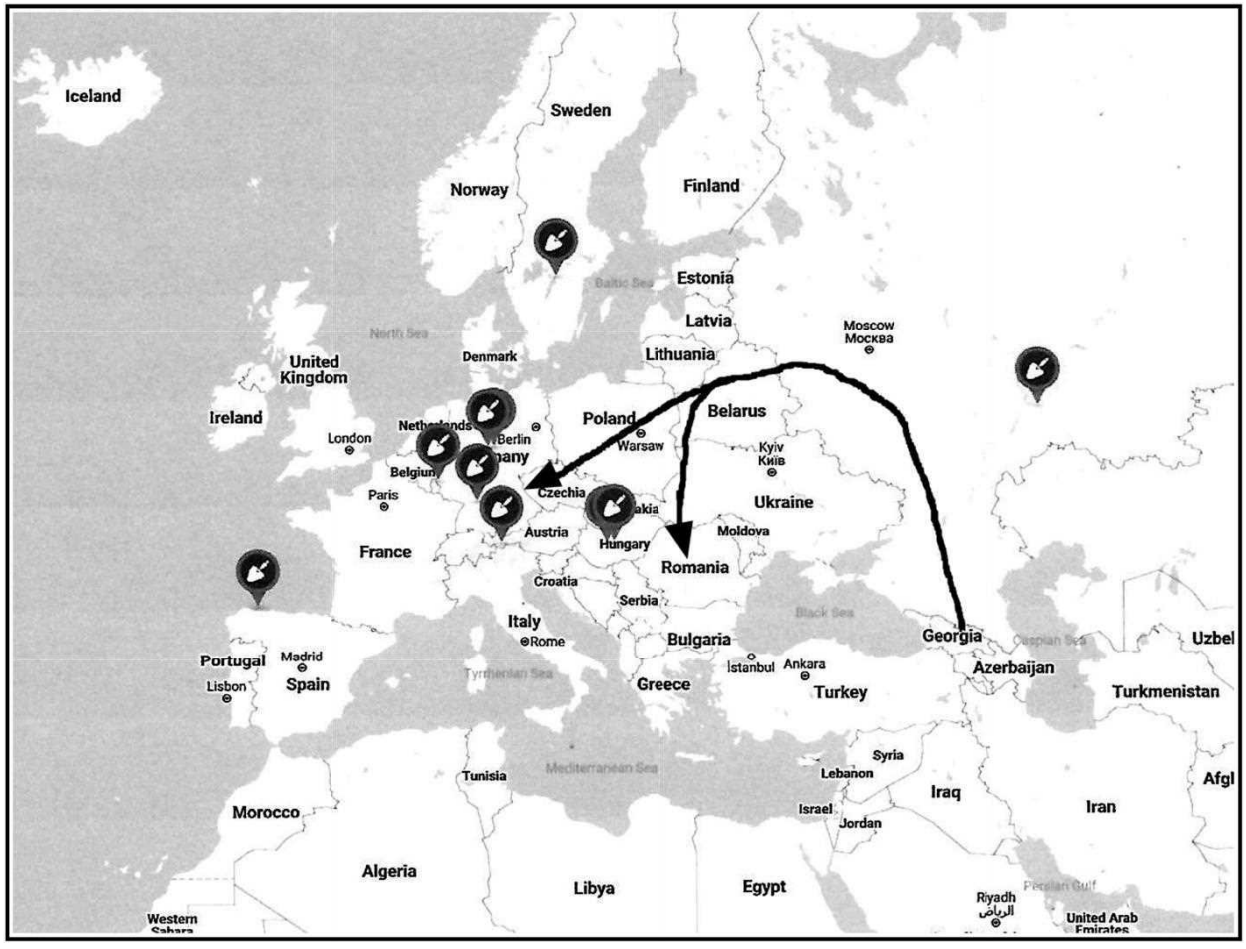
Metal Age Invader 20%

Following the Neolithic Era (New Stone Age), the Bronze Age (3,000–1,000 BCE) is defined by a further iteration in tool making technology. Improving on the stone tools from the Paleolithic and Neolithic Eras, tool makers of the early Bronze Age relied heavily on the use of copper tools, incorporating other metals such as bronze and tin later in the era. The third major wave of migration into the European continent is comprised of peoples from this Bronze Age; specifically, Nomadic herding cultures from the Eurasian steppes found north of the Black Sea. These migrants were closely related to the people of the Black Sea region known as the Yamnaya.

This migration of Bronze Age nomads into the temperate regions further west changed culture and life on the European continent in a multitude of ways. Not only did the people of the Yamnaya culture bring their domesticated horses, wheeled vehicles, and metal tools; they are also credited for delivering changes to the social and genetic makeup of the region. By 2,800 BCE, evidence of new Bronze Age cultures, such as the Bell Beaker and Corded Ware, were emerging throughout much of Western and Central Europe. In the East around the Urals, a group referred to as the Sintashta emerged, expanding east of the Caspian Sea bringing with them chariots and trained horses around 4,000 years ago.

These new cultures formed through admixture between the local European farming cultures and the newly arrived Yamnaya peoples. Research into the influence the Yamnaya culture had on the European continent has also challenged previously held linguistic theories of the origins of Indo-European language. Previous paradigms argued that the Indo-European languages originated from populations from Anatolia; however, present research into the Yamnaya cultures has caused a paradigm shift and linguists now claim the Indo-European languages are rooted with the Yamnaya peoples.

By the Bronze Age, the Y-chromosome haplogroup R1b was quickly gaining dominance in Western Europe (as we see today) with high frequencies of individuals belonging to the M269 subclade. Ancient DNA evidence supports the hypothesis that the R1b was introduced into mainland Europe by the Bronze Age invaders coming from the Black Sea region. Further DNA evidence suggests that a lactose tolerance originated from the Yamnaya or another closely tied steppe group. Current day populations in Northern Europe typically show a higher frequency of relatedness to Yamnaya populations, as well as earlier populations of Western European Hunter-Gatherer societies.



Corded Ware – Central Europe (~4,000 years ago)

The Neolithic Early Farming culture of Central Europe was culturally and physically replaced by 2,800 BCE. The new inhabitants of this region, the Yamnaya, brought culture and Early Bronze age technology originating from the Eurasian Steppe. Later cultures inhabiting Central Europe, most notably the

Corded Ware culture of the late Neolithic, could identify an average of 75% ancestry from the Yamnaya culture. The remaining 25% show ancestry from Early Neolithic Farming Cultures like the Linearbandkeramik. Changes in subsistence strategy and culture can be identified through DNA analysis, as well as changes in cultural practices such as burial rituals and practices. Cultural evolution in this area is displayed in the arrival of pit burial practices and agro-pastoral subsistence strategies.

Yamnaya – Eurasian Steppe (~5,800 years ago)

At roughly 3,800 BCE, the people of the Yamnaya culture emerged in the Eurasian Steppe. The Yamnaya relied on a subsistence strategy of pastoralism, and displayed an advanced understanding of metals (primarily copper) and animal domestication. They mined the metals they used to construct daggers, axes, and jewelry; and used domesticated horses to guide the movement of their herds. Large swaths of land are necessary for herds to graze; and as little evidence of Eastern Yamnaya settlements have been found, experts suggest that the Yamnaya peoples were partially nomadic. It is likely the Yamnaya peoples spent much of their time in wagons moving their herds in response to seasonal changes. Archaeological digs on land used for ancient Yamnaya burials have discovered that burials were ritualized, as scientists have unearthed material goods and wheeled carts buried with high ranking individuals. Finally, DNA evidence shows that a common Y-chromosome haplogroup of the Yamnaya pastoralists is R1a and R1b, which is still prevalent in Western Europe today.

Non-European

Non-European 0%

Most of the world is not of European descent. However, Family Tree currently doesn't have enough scientific data to define these populations. As more significant DNA evidence is found in other regions of the world, Family Tree will continue to connect ancient and present research and hope to expand their non-European findings. As of the now, all non-European origins should be explored through recent DNA results. It's also possible that Metal Age Invaders, Farmers, and Hunter-Gatherers influenced groups in other parts of the world. For this reason, it's possible to have a non-European of zero percent while your recent DNA origins show percentages for populations outside Europe.

Interpretation of Results

The results from Family Tree certainly provided a different view. They didn't fill in the gaps that I was hoping for but they did provide a historical and genetic perspective. Even though the Family Tree analysis covers 90 reference populations, the Italian Peninsula was my main contributing source. DNA from other regions, such as the Iberian Peninsula, Sardinia, and Scandinavia, were not represented in my recent results. The most obvious answer is that lack of representation is due to recombination over the last five or six generations.

Family Tree's ancient results were also disappointing. They provided historical detail and archaeological findings for three European groups – hunter gatherers, farmers, and metal age invaders. While the percentage distribution made sense, I didn't gain any real insight to population origins. These results were not useful in confirming ancient origins. Missing were any African or South American influence. Their research at this time only covers European descent but will be expanded as more significant DNA evidence is found in other regions.

Family Tree's forte appears to be DNA matching. They provided shared chromosome matches compared to others in their database along with a possible range for kinship relations. There also is literature and online tools to help interpret DNA match results. While this may be interesting to explore, it wasn't my main objective when selecting Family Tree DNA.

However, the list of over 300 individuals that were matches within 5 generations did provide some confirmation of specific origins. Of those individuals that provided information on their ancestry, their roots included Calabria (Italy), Tortorici (Sicily), Messina (Sicily), Australia, Scandinavia including Norway and Finland, Brazil, Spain, and Romania.

CRI Genetics vs Family Tree DNA

The ONLY possible comparison between DNA tests is with the recent ancestry analysis from CRI Genetics. There is insufficient data from Family Tree for any other comparisons.

CRI GENETICS		FAMILY TREE DNA	
RECENT ANCESTRY	%	POPULATION CLUSTERS	%
European.		Europe	
- Italy	65.5	Southern Europe	
Germany	12.8	Italian Peninsula	**80.0**
Spain	2.9		
	81.2		
Greece	6.2	Greece & Balkans	**13.0**
Southern Central Slavic	5.1		
	11.3		
		Middle East & North Africa	
		Middle East	
Jewish	**5.4**	Southern Levant	**4.0**
East Asian		Anatolia, Armenia, &	
Han Chinese*	**2.1**	Mesopotamia*	**<3.0**

* These these findings do not necessarily imply that within the last five generations a person was pure Asian or Middle Eastern but they had that heritage which affected their DNA break down.

Overall, these two results are compatible. As expected, the last five generations show mostly an Italian influence. And recombination heritages are seen at lesser percentages.

Mitochondrial DNA Analysis

Family Tree's mtDNA analysis was very thorough. It traced my maternal ancestry from "Eve" through the Sudan and Egypt to Turkey. It is unclear if migration was from Turkey to Iran or directly to Europe. I belong to Haplogroup H or more precisely H8c.

Haplogroup H is a predominately European haplogroup that originated outside of Europe. It is both the most common and most diverse maternal lineage

(1) in Europe,

(2) in most of the Near East (which covers Morocco, Algeria, Tunisia, Libya, Egypt, Israel, Syria, Jordan, Lebanon, Saudi Arabia, and Iran),

(3) and in the Caucasus region (which covers Southern Russia, Georgia, Armenia, and Azerbaijan).

Migrations from Iberia suggest Haplogroup H reached Europe before the last maximum ice age. It first expanded in the northern Near East and southern Caucasus between 33,000 and 26,000 years ago. It later spread to Siberia and Inner Asia (covering Western China, Mongolia, Russian Far East, and Siberia). Today about 40% of all mitochondrial lineages in Europe are classified as Haplogroup H.

Haplogroup H8 is a subgroup of Haplogroup H. And Haplogroup H8c is a branch of H8 whose exact origins are unknown. It is found in central and western Europe, Central Asia, and the Altai in western Siberia.

Family Tree vs CRI Genetics

Family Tree carried out the analysis one step farther than CRI Genetics.

While Family Free doesn't mention Haplogroup R generating Haplogroups H, V, J, T, U, K and they show the migration route going directly from N to H, the description of H and the branch H8c matches what I know of my maternal genealogy and fits my maternal associated gene pool.

The analysis further delineated my grandmother's heritage.

WHO AM I?

I looked to GPS Origins for my main and mid family ancestry and CRI Genetics for detailed secondary or advanced ancestry influences. And for mtDNA analysis I turned to Family Tree DNA. There were a few compromises. For example, I feel that Northwestern Africa had more secondary influences than shown by CRI Genetics. And Family Tree mtDNA analysis implies maternal Middle Eastern advanced origins.

Paternal Ancestry

MAIN			
Europe:	Southern France	12.50%	
	Southern Levant	3.10%	
	Sardinian	13.20%	
	Basque Country	8.30%	37.10%
SECONDARY			
Middle East:	Arabia (50%)	1.40%	1.40%
South Asia:	Gujarati Indian	2.20%	
	Tamil - Sri Lanka	1.90%	4.10%
AdMixed American:	Peruvian	2.00%	
	Mexican	0.20%	
	Columbian	1.50%	
	Puerto Rican	2.10%	5.80%
Africa:	Esan in Nigeria	0.40%	
	Mende in Sierra Leone	0.20%	
	African American	0.10%	
	Northwestern Africa(balance)	1.40%	2.10%
			50.50%

First of all, based on Family Tree mitochondrial DNA analysis maternal representation from the Near East seems appropriate. So the GPS Origins Arabia gene pool was divided between paternal and maternal origins. A 50% split for secondary influences seems reasonable.

Next, GPS Origins shows a 6.7% Northwestern Africa contribution with peaks in Algeria and declines in Morocco and Tunisia. Taking into account migration and exploration, African gene pools and some AdMixed American (Columbian, Puerto Rican, 50% Peruvian) are possibly integrated with the Northwestern African contribution. Subtracting those CRI Genetics gene pools with possible mixed origins from the Northwestern African influence leaves an estimated balance of 1.40% secondary contribution.

If I was asked to describe my paternal grandfather's heritage, I'd say his main ancestry is Southern France/Basque/Sardinian. And for my paternal grandmother, it would be Sardinian/Basque/Southern France.

Maternal Gene Pool

MAIN			
Europe:	Fennoscandia	12.40%	
	Orkney Islands	10.30%	
	Western Siberia	11.00%	
	Tuva	7.60%	41.30%
SECONDARY			
Middle East:	Arabia (50%)	1.40%	1.40%
South Asia:	Punjabi	4.00%	
	Bengali	2.00%	6.0%
East Asia:	Chinese Dai	0.70%	
	Japanese	0.50%	
	Kinh Vietnamese	0.20%	
	North Han Chinese	0.10%	
	South Han Chinese	0.10%	1.6%
			50.3%

My maternal grandfather's main ancestry is Fennoscandia (Norway-Normans, Iceland) and Orkney Islands. And may also include some Western Siberia ancestry. My maternal grandmother's main heritage is Western Siberia and Tuva, along with Fennoscandia (Scandinavia-Lombard). Secondary influences include recombination of our mtDNA Haplogroup H8c heritage.

Reflections

My ancestors had one amazing journey. Whether adventurers, traders, merchants, or explorers, they came from all parts of the world. They traveled trade routes, unmarked paths, and well-worn roads. Whether by sea or land, they set out to discover, explore, and find new beginnings.

While we may travel many roads in our lives, the ones that collectively define us more than others are those traveled by our ancestors. It shows us the courage, determination, and commitment that brought us to this point. And it instills in us the spirit and adventure to achieve the impossible while looking to the future with anticipation to explore the roads yet to be taken.

Appendix

While we've talked about migratory paths and ancient trade routes, it doesn't put into perspective the chronological timeline. Political events, environmental conditions, and economic hardships are just some of the factors that also define our ancestors. So to complete the picture, I'd like to present a brief chronological history of Sicily and Southern Italy.

Sicilian History

Sicily's extensive coastline ranges from rocky cliffs to sandy beaches. Mount Etna, in the east, is the tallest active volcano of Europe and one of the most active in the world. There are also several other non-volcanic mountain ranges. But while the mountains and coastline are Sicily's best known features, there are also low hills and valleys. And at one time extensive forests covered the interior. Sicily was also known as a grain producing region with citrus fruit, oranges, lemons, olives, olive oil, almonds and wine among its agricultural products. Once, even sugar cane and cotton were grown. In the nineteenth century, the mines of the Enna and Caltanissetta districts were leading sulfur producing areas.

The history of Sicily covers more than three thousand years. And because of its strategic location, throughout much of that history, Sicily was at the center of the Mediterranean trade routes.

Early History to 491

There is no other part of Europe that has been influenced by a greater number of ethnic groups than Sicily. Drawings found in the Addaura Cavern near Palermo show evidence of human presence about 8,000 BC. The early inhabitants were cave dwellers and in about 5,000 BC they began to live in villages when agriculture became predominant. And at one time there could have been land connections between Sicily and both Africa and mainland Italy.

The earliest civilization was the Sicani who may be descendants of the earliest inhabitants. One theory is that they migrated from the Iberian Peninsula. When the Sicels, who were probably from central Italy, began to settle in the eastern part of Sicily, the Sicani settlements moved further inland. Also the Elymi, who may have been from Asia Minor by way of Africa, settled in the north west corner of the island.

Phoenicia is an ancient region that corresponds to modern Lebanon and parts of Syria and Israel. The Phoenicians were merchants, traders, and colonizers. By 1000 BC, they found Sicily suitable for mooring large vessels and established trading settlements along the north west coast. At this time they were also establishing colonies in North Africa where Carthage became the most successful. This was all before Greek colonization began in 735 BC. The Greek cities prospered until the beginning of the 6th century BC. Carthage grew in power while Phoenicia declined. Carthage eventually emerged as the ruler of the former Phoenician colonies.

As the Phoenician settlements became more dependent on Carthage, the Greeks became wary of the growing Carthaginian influence. There were also conflicts among the Greek cities themselves as they sought greater power and control. After years of struggles between the Carthaginians and Greeks, the Greeks formed an alliance with Rome. This led to the First Punic War from 264 to 241 BC. Since battles were fought in and around

Sicily, the island suffered greatly. Carthage was defeated by the Romans who gained control of all the Carthaginian holdings in Sicily. At the end of the Greek period, practically all of Sicily was based in Eastern Mediterranean culture.

Life in Sicily during Roman rule was difficult. Slaves tilled the land; law was not upheld; and Sicily became the chief source of grain for Rome. There were two unsuccessful slave revolts late in the 2nd century BC. Throughout this time, Sicily remained culturally Greek. The people spoke Greek and Greek customs and traditions remained.

Middle Ages from 491-1796

With the fall of the Roman Empire, Sicily was ruled for a brief time in 440 by the Vandals who were an East Germanic tribe originally from what is now Poland. They were replaced by the Ostrogoths who were a division of the Goths. They rose in power in the Black Sea region and expanded southward. They controlled Sicily from 491 before the Eastern Byzantine Roman Empire, whose capital was Constantinople, won out in about 535. Sicily officially became part of the Byzantine Empire in 692 and the connection to the eastern Mediterranean region basically helped Sicily to retain her Greek influence.

Who were the Goths?

The Goths were an East Germanic people of two branches that was first noted in 291. Cassiodorus, a Roman in the service of Theodoric the Great, invented the term Visigoth to match that of Ostrogoth, which he thought of as "western Goths" and "eastern Goths" respectively. The western-eastern division was a simplification where political realities were more complex. Furthermore, Cassiodorus used the term Goths to refer only to the Ostrogoths, whom he served, and reserved the geographical term Visigoths for the Gallo-Spanish Goths. This usage was adopted by the Visigoths themselves in their communications with the Byzantine Empire and was in use in the seventh century.

The Goths appealed to the Roman emperor to be allowed to settle on the south bank of the Danube. Here, they hoped to find refuge from the Huns. However, a famine broke out and Rome was unwilling to supply them with the food they were promised nor the land. An open revolt followed leading to six years of plundering and destruction throughout the Balkans, the death of a Roman Emperor, and the destruction of an entire Roman army.

The Battle of Adrianople in 378 was the decisive moment of the war. The Roman forces were slaughtered; the Roman Emperor Valens was killed during the fighting, shocking the Roman world and eventually forcing the Romans to negotiate with and settle the Goths on Roman land. This formed a new trend with far reaching consequences for the eventual fall of the Roman Empire.

The Visigothic Kingdom was a Western European power in the 5th to 7th centuries, created in Gaul when the Romans lost control of their empire. From 407 to 409 the Vandals invaded the Iberian peninsula. In response to this invasion, Honorius, the emperor in the West, enlisted the aid of the Visigoths to regain control of the territory. In 418, Honorius rewarded his Visigoths by giving them land in southwest France on which to settle. The settlement formed the nucleus of the future Visigothic kingdom that would eventually expand across the Pyrenees and onto the Iberian peninsula. The Visigoths' second great king, Euric, unified the various quarreling Visigoth factions and, in 475, forced the Roman government to grant them full independence. At his death, the Visigoths were the most powerful of the successor states to the Western Roman Empire.

The Visigoths also became the dominant power in the Iberian Peninsula. In 507, the Franks defeated the Visigoths at Vouillé in western France. The center of Visigothic rule shifted first to Barcelona, then inland and south to Toledo. In 554, Granada and

southernmost Roman province were lost to representatives of the Byzantine Empire who had been invited in to help settle a Visigothic dynastic struggle. By 585, the last Visigothic king conquered the Suevic kingdom of Galicia, most of the northern regions, and regained part of the southern areas lost to the Byzantines which was reconquered completely in 624. The kingdom survived until 711, when King Roderic was killed while opposing an invasion from the south by the Umayyad Muslims. This marked the beginning of the Muslim conquest of Iberian peninsula. By 718 most of peninsula came under Islamic rule.

Visigoths, refusing to adopt the Muslim faith or live under their rule, fled north to the kingdom of the Franks, and Visigoths played key roles in the empire of Charlemagne a few generations later.

The strife between Europe and Africa would once again be renewed. The Saracens began to settle on the island. Saracen was a name used by the Greeks and Romans for nomad Arabs. Although their progress was slow, the Saracens persisted and, by 877, successfully took Syracuse. The dominant years of Greek culture in Sicily ended. But as the Muslims in Sicily were busy with their own civil wars, the emperors never really gave up hope of reclaiming Sicily. While there were conflicts between the Muslims and Christians on the island, direct warfare between the empire and the Saracens was more active in Italy than Sicily. Saracen conquest continued and by 965 all of Sicily was under Arab rule.

Under the Muslims, the status of the Christians varied from personal slaves to communities that were left free as long as they paid a tribute. Still, Christianity and the Greek language endured and the churches and monasteries were allowed to hold property. The culture of the Saracens was advanced as evident in both their style of architecture, especially found in Palermo, and their literature, that was written in both Greek and Arabic.

Meanwhile, on the mainland, southern Italy was spared the conflicts of those in the northern and central regions. The Greeks and Lombards still divided the south between them. Even after the Pope turned to the Franks to help overthrow the Lombards, the south still recognized the Byzantine empire.

Normans

The Normans, as referenced here, pertains to those settlers from Scandinavia who, by settling in Gaul, founded Normandy and adopted the French language and customs.

Who were the Franks?

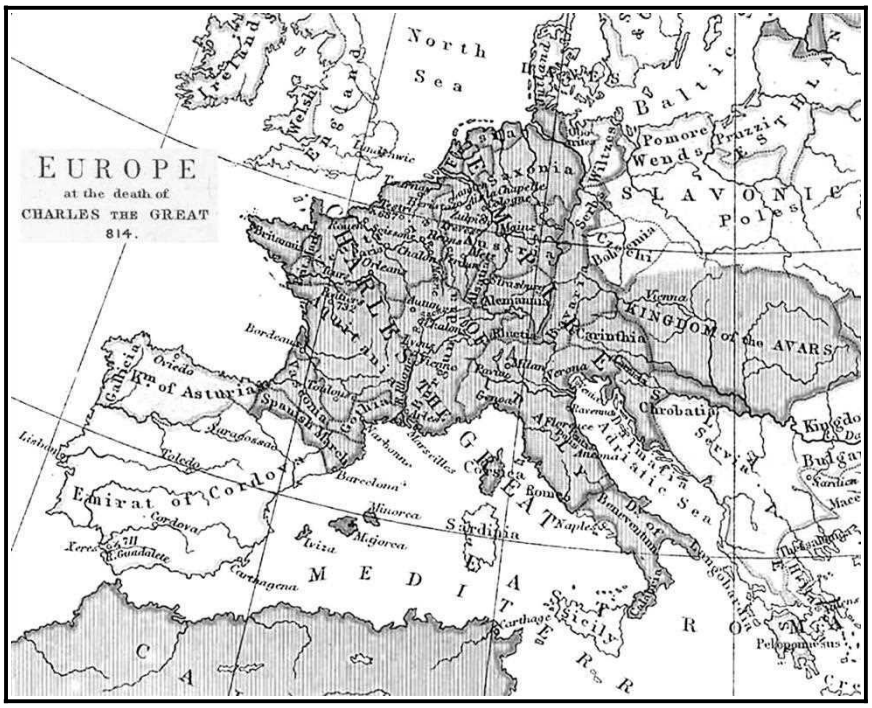
The Franks were a group of Germanic tribes, probably from Scandinavia, that were living north and east of the lower Rhine river in the 3rd century. By the 5th century the Salian Franks had moved into Roman territories and were now occupying the Netherlands south of the Rhine, Belgium, and northwestern Gaul where they formed a kingdom that would become the Merovingian dynasty.

The Franks were both allies and enemies of the Romans. They even served as commanders in the Roman armies. By the 5th century there were many small

Frankish kingdoms such as the ones in Cologne, Tourni, LeMans, and Cambrai. The various kingdoms fought among themselves. And in the end the Tourni were the victors. Clovis I, son of King Childeric I, had conquered all the Frankish kingdoms west of the river Maas and the city of Paris became his capital. When Clovis I conquered the kingdom of Cologne in 509, he became the first king of all Franks.

The Merovingian period saw the development of three distinct regions, Austrasia, Neustria, and Burgundy. But by the middle of the 8th century, the Merovingian dynasty gave way to the Carolingian Empire. The Caroligians were not without their internal conflicts but their expansion of the Frankish rule and Roman Christianity over western and central Europe ensured unity throughout Europe. The Frankish government and culture was based on independent rulers and their goals. So each part of the Carolingian dynasty developed differently but they shared the same beliefs and ideas of government rooted in both Germanic and Roman tradition.

It was Pepin who disposed the last Merovingian king and assumed the Frankish crown with the approval of the Pope. The Pope officially crowned him King in 754. King Pepin had two sons, Charles and Carloman. When Pepin died in 768 the empire was divided between his two sons. Charles inherited Austrasia, Neustria, and Aquitaine. This displeased Carloman who wanted the entire kingdom to himself on the grounds that he was born after their father's coronation. But revenge was not meant to be. Charles defeated the heirs of Carloman and he took the title king of the Lombards in the late 8th century. Frankish military posts and officials were established throughout the kingdom but some Lombard dukes in north and central Italy were allowed to remain as followers of the conqueror. Charles' success continued and in 800 Charles was crowned emperor of Rome by Pope Leo II. Charles became known as Charles the Great or Charlemagne.



Originally the Franks were pagans. Most of their pagan gods took earthly forms and were linked to both local customs and specific regions. Some Franks converted to Christianity. But when Clovis I, who married a Burgundian Catholic, was baptized into the Catholic faith along with 3000 of his solders in 496, the course of European

history changed. The Franks became the first Christian Germanic tribe that had a relationship with the Church of Rome. A large number of the Frankish aristocracy also were converted but it took almost two hundred years before the entire Frankish empire converted to Catholicism. Their devotion to Christianity continued with Charles the Great. Charles was canonized in 1164 but there was no real claim to sainthood.

Under the reign of Charles the Great, art and literature flourished. Trade skills in ivory and metal along with goldsmiths advanced. Among the Frankish clergy, scholarship was encouraged. Charles himself studied Latin and astronomy. The effect of these studies can be seen in the way legislation was detailed, composed, and written. For a select group, education was provided in monastic schools. The libraries of those schools housed valuable manuscripts. While Charles left a large library of manuscripts, there is little remaining of his palaces and their furnishings. Only the chapel of his palace in Aachen, Germany remains along with a chapel from the palace at Nymwegen near the Saxon border. Charles the Great died in 814 and was buried in the chapel in Aachen.

In 1017, a group of Norman adventurers set off on a pilgrimage to Italy. While there, they helped the Lombard city of Apulia, in Calabria southern Italy, defend themselves against the Greeks. The Normans remained in Italy and their influence and territory spread slowly. By the time they became a considerable force in southern Italy, William de Hauteville became Count of Apulia. His half brother, Robert Guiscard, received from the Pope the investiture of all present and future conquests in Apulia and Sicily to be held as fiefs of the Church. After consolidating their possessions on the mainland, Robert's brother, Count Roger de Hauteville, set off to conquer Sicily in 1060. After a thirty year struggle, in 1091 the Normans had complete control of Sicily.

The conquests of southern Italy and Sicily, although part of the same overall campaign, were completely different in character. In Sicily, the Normans found both a Christian-Greek speaking people and a Muslim-Arabic speaking people. And the relationship between the two varied greatly, from ruling class to complete slavery, depending on the region. Norman rule in Sicily distinguishes itself from all others in that all races flourished, each with their own beliefs, language, and customs. There was impartial justice for all. The Normans also opened Sicily to settlers from the Norman possession in Italy, specifically the Lombards. Sicily became a land of many nations under the protection of a Sicilian king. However for Sicily, while it flourished under the Normans, in reality there was still no sense of a Sicilian nation.

The Norman era lasted through four rulers, two Rogers succeeded by two Williams followed by a Swabian, from southwest Germany, wed to Constance, the last surviving direct descendant and heir of Roger. Constance de Hauteville married Henry VI (Hohenstaufen), the eldest son of emperor Frederick I and who was to become King of the Holy Roman Empire. In 1194, when Henry VI claimed the Sicilian crown, all of Italy, except for the Papal State, was united under one ruler.

Swabian, Angevin, Aragonese

Frederick II, son of Henry VI, was crowned King of Sicily, but being a minor, he was put under the guardianship of Pope Innocent III. This period is best described as one of unrest and revolts. The Lombards gained more influence and the decline of the Saracens remained unchecked. The Italian part of Sicilian society advanced at the expense of all others.

When Fredrick II died in 1250, the crown passed to his son Conrad. But the real ruler was Frederick's illegitimate son Manfred. The ongoing struggle between the Pope and the House of Hohenstaufen led the Pope in 1265 to enlist the help of the French. Charles of Anjou agreed to accept the kingdom of the Two Sicilies as a fief of the Church. Fredrick's sons were defeated and Charles of Anjou officially became King of both Sicily and Naples in 1266.

On the mainland Charles established a dynasty but in Sicily his rule was one of discontent. The Sicilian Vespers in 1282 was a spontaneous reaction and the culmination of growing tensions. It started at the hour of the vespers on Easter Sunday in a church near Palermo. A French soldier insulted a Sicilian woman and a general massacre of the French began. The uprising spread to Palermo, where a republic was proclaimed. It then spread to the rest of the island. Within a month, Sicily was in the hands of the rebels.

In an attempt to reconquer Sicily, Charles led an attack against the Sicilians at Messina. The island was saved from reconquest by Peter of Aragon from northeastern Spain. Peter of Aragon was the husband of Manfred's daughter Constance. The Sicilian rebels had elicited Peter to lay claim to the crown of Sicily.

The Aragonese period in Sicily lasted two hundred and ten years, 1282 to 1492. The Angevin remained in control of the Kingdom of Naples. But by the middle of the fifteenth century, the crown of Naples was inherited by the Aragonese and once more Sicily was united with Naples.

Spanish

For all of Italy, 1492 marked a turning point. Spain, France, and Germany all were summoned on different pretenses to invade Italy. In the end, Spain won out and from 1530 to 1796, all of Italy was under Spanish rule. Italy became a Spanish possession and while battles were fought in Italy, the gains increased the wealth and position of the foreign royal families. Italy went from being first among the intellectual leaders to practically last. Politically they were a nation in slavery. The only one to gain was the Papal State whose power, influence, and prestige increased during this time.

But there was hope. The Dukes of Savoy in 1574 were given the Piedmont cities evacuated by the French and Spanish. While the House of Savoy was slowly gaining back other territories previously lost in northern Italy, the Spanish monarchy was beginning to loose its hold. The people, tired of high taxes and poor government, rose against their oppressors. But in the end, they still had no say in their fate. Those decisions were made either by those in charge or on the battlefields. The death of Charles II in 1700 ended the Austrian Spanish line, and in 1713, the Treaty of Utrecht assigned Sicily to Victor Amadeus II of the House of Savoy. This lasted only seven years, in 1720 Sicily was exchanged for the Island of Sardinia with Charles of the Austrian Hapsburg dynasty.

In 1735 by the Treaty of Vienna, marking the end of the War of Polish Succession, Sicily and Naples were given to the Bourbons of Spain. On Charles III's succession to the Spanish throne in 1759, the crown passed to his son Ferdinand. Ferdinand was married to Maria Carolina, daughter of Maria Teresa of the Austrian House of Hapsburg. This marriage united the Austrian Hapsburg influence in the north with the Spanish Bourbons in the south.

The Napoleonic Period 1796-1814

Napoleon's campaign of 1796 was an enlightenment for the people of Italy. Napoleon's aim was to remodel existing rule along the lines of a democratic French republic. Civil administration, law, judicial procedure, education, and public works made great strides under Napoleon. But due to the strict standards of the continental system, trade was crippled, and the recruiting of men to supply Napoleon's armies was a serious disadvantage to Italy. Distrusting those in power, many Italians sought to act independently in favor of an Italian republic. Lord William Bentinck, with an Anglo-Sicilian military force, issued a proclamation urging the Italians to rise against Napoleon in the interests of their own freedom.

Ferdinand was forced out of Naples by Napoleon in 1806. Ferdinand and Maria Carolina returned to Sicily, under the restraint of the British, where they continued their reign but the court's extravagance and tactics made their presence intolerable. A conflict between the court and parliament led the British Minister, Lord William Bentinck, to take action. He forced Ferdinand to resign his authority, appointed his son ruler, and introduced valuable reforms. He also exiled the queen, who died in Austria in 1814. In 1812 a constitution modeled after that of England was passed. But after the departure of the British troops in 1814, the constitution lapsed and the royal authority became once again absolute. But all was not lost. Both Sicily and Naples, while in different ways, had experienced the benefits of fair laws, effective administration, and the goals of an enlightened leader. And that is what prompted them to put in motion the events of 1848 and 1860.

During this time in Naples, Joseph Bonaparte became king in 1806. He introduced many reforms and abolished feudalism but the taxes and forced tributes were too much of a burden. Uprisings led by brigand chiefs maintained a constant state of disorder. In July 1806, a British force under Sir John Stuart defeated the French at Maida, Calabria. In 1808, Napoleon conferred the crown of Spain on Joseph and appointed Joachim Murat King of Naples. But by 1815 the Austrians restored Bourbon rule to Naples. Ferdinand then returned to Naples, regained his throne, and took the title of Ferdinand I, of the Two Sicilies.

The Risorgimento

Ferdinand I died in 1825 and was succeeded by his son Francis I who in turn was followed by his son Ferdinand II in 1830. Ferdinand II was an incapable ruler who insisted on making all executive decisions on his own. By 1848, disruptions broke out in Palermo and Naples. The insurgents demanded either the constitution of 1812 or complete independence. The king, in the absence of any help from Austria, granted a constitution. The word spread quickly from Naples and prompted the demand for a constitution in Piedmont. Although the king disliked the idea, he granted a charter that was to become the future constitution for the kingdom. But victory was temporary. Ferdinand II didn't openly break his constitutional promises until Austrian troops retook Italy.

Lessons were learned. The cause had strengthened the feeling of unity. It was also evident that the only one they could trust was Victor Emmanuel II of the House of Savoy. They likewise realized that they needed the help of the Piedmontese army but they were loyal to the royal family.

Beginning of Modern History

The time was right. An invitation was sent to Giuseppe Garibaldi to head the movement. Garibaldi entered Sicily in May 1860. Palermo was taken by the end of May and Messina fell by July. He crossed to the mainland and Reggio was taken in August. In September, he successfully marched into Naples. At the end of October, Garibaldi and Victor Emmanuel II met and entered Naples together in November, at which time Garibaldi turned over his authority to the king. On February 18, 1861, the first Italian parliament met at Turin and proclaimed Victor Emmanuel king of the united Italy.

The intention was to unify the territories into a modern nation. But first the banditry and a series of revolts for independence in Palermo had to be addressed. The government also attempted to balance the budget by increasing taxes, converting the banks into state banks, and placing schools and hospitals under civil administration. The industrial north fared only slightly better than the south where there were uprisings among the peasantry due to low wages and unemployment. There were ongoing local feuds and struggles for power among the various influential families. But above all, the primary cause of unrest was the unsatisfactory conditions of the working class.

As the Sicilian economy collapsed, it should be no surprise that Italian emigration began in the 1860's and steadily increased until the early 1900's.

The First World War brought more unrest. A large number of southerns died for their nation and the Fascists government that came into power in 1922. However, by 1930 life for many was worse than ever. Following years of oppression and poverty, the Sicilians welcomed the Allies as liberators in 1943. The Allied victors set in motion the task of reorganization. Political prisoners were freed; journalists were allowed free expression; and most importantly, food was distributed to the average citizens. After many generations, the cause of Italian unity became a national creed throughout Italy. In June 1946 the people voted to form a Republic over a Monarchy. As part of the new constitution, Sicily became an autonomous region. The monarch was abolished; titled nobility were no longer recognized; the Senate became an elective body; and a democratic constitution was enacted in 1948.

Ancestral Villages

Gesso, Messina, Sicily

Gesso (Ibiso) is a small village located on the SS113 about 10 miles northwest of Messina and about 2 miles from Villafranca Tirrena. It sits on the northern side of the Peloritani Mountains in a hilly area, about 870 feet above sea level, near the Tyrrhenian Sea. Nearby are the ancient towns of Salice and Serro, and the village of Orto Luizzo. Gesso was also on a strategic trade and military route that linked the Tyrrhenian Sea in the west to the city of Messina in the East. The village's origins date to before the arrival of the Normans.

The English translation of Gesso is chalk, gypsum, or plaster of paris. The reference is to the quarries of calcium sulphate or gypsum that formed the economic basis of the town for centuries. The quarries have been closed since the 1960's.

At one time, Gesso was an important center of Greek orthodox worship. It was home to at least three Basilian monasteries: St. Gregory the Great, St. Biagio, and St. Nicholas. All have since been destroyed. The region was known as the Basilian district in the Middle

Ages. According to an 18th century monk, Rocco Pirro, in 1063 Count Ruggero d'Altavilla wanted to build a monastery and church dedicated to Saint Gregory on the exact spot where he defeated the Saracens. Subsequently, the monasteries of St. Biagio and St. Nicholas were constructed. While the people of Gesso successfully defended themselves against an attack by the Saracens, in 1674, Gesso suffered greatly from the revolt against the Spanish as the skirmishes neared Messina.

Today, the oldest existing buildings in the village date from the 17th century: the parish church of St Anthony Abbot (inaugurated 1/17/1612), the convent of San Francesco da Paola, the Capuchin monastery and the adjoining Church of the Immaculate Conception.

Castell'Umberto, Messina, Sicily

Castell'Umberto is about 75 miles from Messina and 105 miles from Palermo. The town rises about 2,165 feet above sea level and covers an area of approximately 4.4 square miles. It is predominantly an agricultural area producing olives, hazelnuts, cereals, citrus fruits and grapes. It is also known for its crafts and handmade sculptures in marble and stone.

Castania

The original town was known as Castania or Castanea and probably dates from the time of the early Greek settlers in Sicily. It may also have been known as Quastania when inhabited by the Christians and Muslims.

The legends of the town's origin are numerous but one thing is certain it's location in the Fitalia Valley provided easy access from the Tyrrhenian Sea to the Ionian Sea on the other side of the island. During the Norman occupation of Sicily, Count Roger Hauteville gave the town to Baressse Abba who was from Normandy. Then during the reign of Frederick II of Aragon, Castania became a possession of Conrad Lanza in 1302. It subsequently was sold to Gregory Taranto in 1322. Castania changed owners several times before returning to the Taranto family. John Taranto died without children and the land was left to his sister Margaret who married Nicholas Paterno. It was passed down in the Paterno family until Antonio Benedict Paterno died without children and the land was passed to his sister Grace who married Antonio Tomabene. In 1516 the Tomabene line ended and the land was passed to Blasco Lanza who married Laura Tomabene. Lanza was granted the title of baron in 1518.

As the story continues, it was Cesare Lanza that sold Castania to Giovanni Sollima. Giovanni Sollima was beheaded in 1586 following struggles between the noble and common classes in the province. Thus began the decline of the Sollima family due to debt from the costs incurred for maintaining the barony. Eventually their last heir sold all his property in the territory of Castania. Until 1812, the baronial administration controlled every aspect of the lives of the people. The Bourbon reform of 1812 gave rise to the legend of the baron killed in retaliation by the people of Castania. And in 1817, Castania was liberated from any feudal law and became a free municipality.

Castania was a poor village. It was during the Norman era in the fourteenth century that the town began to see the Norman artistic impact. St. Nicholas was the first church built with the Norman style of architecture using stone and Roman influences. It was adorned with sandstone carvings by local stonemasons.

The area around Castania was subject to constant floods and land shifts but the disastrous landslide of 1864 destroyed most of the village and forced the villagers to evacuate. A royal decree ordered the transfer of Castania to a safer place. The new site

was a few miles upstream of the old village with views of the Valley of Fitalia to the south-west, the Aeolian Islands on the north, and Mt. Etna to the south-east. First to be built was the municipal building, an artistic fountain, and a group of ten houses for the poor.

However, the funds allocated by the State and Province were not enough to relocate the entire population. In 1908, mayor Cesare di Vincenzo enacted a new municipal resolution requesting the necessary support and commitment to provide for the transfer of the entire population to the new town. Work was completed on the new city center around 1930 thanks to the support of King Umberto I. Hence, the new town was named Castell'Umberto in his honor. The official transfer was made in 1931 but not before another flood and numerous landslides made most of the houses in Castania uninhabitable.

The Cult of Castanesi

The patron saint of Castell'Umberto is Saint Vincent Ferreri. Each year two major festivals are held in his honor. The first is on April 5, the day of the religious celebration, and the second is on August 26-28, which according to local customs signifies gratitude for the agricultural year and the beginning of a well deserved rest for the farmers. The August festival is celebrated with exhibits and fairs culminating on the evening of the 28th with a concert followed by fireworks.

Although the people of Castania do not remember the life of St. Vincent before his death, his assistance to them has shaped both their moral and religious vision of life and community. This started in 1455 when the Blessed Giovanni da Pistoia introduced the cult of St. Vincent. Since then St. Vincent has been attributed with miracles and interventions throughout the town's history.

There is the miracle of the locusts whose numbers were said to have obscured the sun and left the land barren. St. Vincent was seen with a broom sweeping out the entire valley to the sea. Difficult times have always found St. Vincent present to help the people of the town. So when the people of Castania were committed to find wheat for the town in a year of famine, St. Vincent appeared to them in a dream and told them where they could buy the necessary wheat. St. Vincent has also been attributed to keeping their homes safe during the earthquakes that devastated the Fitalia valley. There are two days of thanks each year; December 28th marking the earthquake in Messina in 1908 and March 5th for another disastrous earthquake that struck neighboring towns in 1823.

Calabrian History

What today is known as Calabria is a land that has been conquered, reconquered, and conquered again by various rulers only to be devastated by natural disasters such as earthquakes along the way.

In addition to destructive elements and harsh rulers, Calabria also experienced a feudal system that kept much of the population poor. Mass emigrations stripped the land of most of its workforce and the area suffered severe neglect from the governments that were supposed to serve her. Through it all Calabria has survived. Calabria is now becoming an increasingly important player in the export market for its incomparable olives, olive oil, figs, meats, and cheeses, and is the fastest growing region for tourism in Italy.

Magna Grecia

Between 800 and 700 BC the Greeks established colonies at what is present day Reggio di Calabria, Crotone, and Locri, calling the area Magna Grecia or Great Greece. The Achaean and Chalcidian Greeks took over lands already settled by natives, bringing their civilization, community planning, politics, and written laws along with the glorious grapes, olives, and figs that cover Calabria today. One of those grapes, the gaglioppo, became the base of what is still Calabria's most famous wine, Cirò, from the town of the same name.

The philosopher Pythagorus, of the Pythagorean Theorem from geometry, was active in Calabria. In Crotone, he established the first philosophic-scientific school. Also in Crotone during the 6th century BC, Alcmeone dissected the eye, ear, brain, and spinal marrow, making a claim that Kroton/Crotone was actually the site of the first medical school in the world.

Meanwhile in Reggio di Calabria, then known as Sybaris, its residents were busy inventing la dolce vita. The Sybarites are said to have lived lives of great luxury and decadence. This angered its hard-working, nose-to-the-grindstone neighbors, the Crotonians.

Taking their rivalry to the extreme, in 510 BC, the Crotonians destroyed Sybaris, diverting the waters of the Crati River temporarily to wash over the former city. In 444 BC, the Greeks rebuilt on the site of Sybaris and called the new settlement Thurii. About 250 years later, after Romans were firmly in control of the peninsula, Thurii would be destroyed and Copia built on top of it.

During the time of Magna Grecia, Calabria was called many different names: Bruttium, Saturnia, Ausonia, Enotria, Tirrenia, Esperia. But its most notable name was Italia. Later the name extended north as more and more of the peninsula came under the control of the Romans and became the name of the entire land mass. The name Calabria wouldn't be used until the reign of the Byzantines.

Rise and Fall of the Roman Empire

Around 380 BC, the Romans began planning to add southern Italy as part of its holdings. For most of the time between 380 BC and 295 BC, Rome waged war on most of the native tribes throughout the Italian peninsula. The Battle of Sentinum solidified the Roman empire.

The Romans continued to expand and conquer. The Punic Wars between 264 and 146 BC ended with the destruction of Carthage and brought Hannibal to Calabria in hiding during the Second Punic War. In 203 BC, after a failed quest to defeat the Romans, Hannibal retreated to Carthage and left a bloody mess behind him. It is believed that Hannibal ordered 4000 native mercenaries, who didn't want to go to North Africa with him, slaughtered in the Temple of Hera Lacinia as they sought refuge but others believe he only killed army horses that wouldn't fit on the ships.

Rome then lived in relative complacency until it was challenged by the Western Goths, namely Alaric the Visigoth. In 395 AD, the Roman Empire split into eastern, based in Constantinople/Istanbul, and western, based in Rome. The western half of the Roman Empire was defeated by Alaric in 410 AD which led to its eventual fall in 476 AD. After Alaric conquered Rome, he contracted malaria and died in Cosenza. Legend has it that he, along with a treasure of Roman riches, were buried in the bed of the Busento River.

Byzantines, Saracens, Normans

After the fall of the Roman Empire, the Italian peninsula was invaded and ruled by the Ostrogoths (eastern Goths) and later by Germanic Lombards in the north.

Who are the Lombards?

The Lombards were a Germanic tribe from Scandinavia. They began in southern Sweden and worked their way down into Italy. In the process they became Italians and gave their name to the Northern Italian region of Lombardia. The migration from Sweden to Italy was gradual. It took about four centuries.

They first migrated to the region of Pannonia which is present day Hungry and allied themselves with the Eastern Roman Empire against the Ostrogoths of Italy. They then invaded Italy in the 6th century and set up the Lombard Kingdom under their King Alboin. Their kingdom grew in size and strength until it comprised all of modern day Italy.

In Italy, the Lombards did not maintain the ancient Roman forms of government during their rule of the peninsula. The political landscape was given a German overlay by the Lombards. They spoke Italian and became Catholic, but, basically, Italy became another Germanic area.

Politically, the Lombards got involved in political arguments with the Pope. The popes knew that they couldn't survive if there was only one king or emperor. So, the papacy called upon the Franks for help. The Moslems had removed the authority of the Eastern Roman Emperor from Italy with the help of the Lombards. But someone was needed to keep the Germans from controlling the papacy. Which is where the Franks came in.

In 744 the Lombards were defeated by the Franks. The kingdom became small city states under various powers. The Franks, and later the French, became the protector of the papacy for several centuries. The papacy became an arbitrator of Medieval Politics. It created a balance of power between the various German kings who provided the Church an independence it would never have had under an effective Roman emperor.

In the south, however, by the 6th century BC, a new group of Greeks had come into power, the Byzantines. The Byzantines thrived in Calabria and towns such as Stilo and Rossano achieved great wealth and status. Even today, these two villages retain much of their Byzantine heritage which is best seen in their churches: Stilo's La Cattolica and Rossano's San Marco Evangelista. The Byzantines are credited with giving Calabria her name from the term "kalos-bruo" meaning "fertile earth."

Around 800 AD, Saracens began invading the shores of Calabria, attempting to gain control of the area from the Byzantines. This group of Arabs had already been successful in Sicily and knew that Calabria was another key spot. The people of Calabria retreated into the mountains for safety. Although the Arabs never really got a stronghold on the whole of Calabria, they did control some villages while enhancing trade relations with the eastern world.

It is during this time, and thanks to the invading Arabs, that many staples of today's Calabrian cuisine came into fashion, for example citrus fruits and eggplants. Exotic spices such as cloves and nutmeg were also introduced.

While the Byzantines and Saracens fought, along came the Norman Robert Guiscard in the middle of the 11th century conquering all. Around 1130, Pope Innocent II gave Guiscard's nephew, Roger II, the Kingdom of Sicily and all of the Norman-controlled areas of southern Italy: Campania (including Naples), Abruzzo, Molise, Puglia, Basilicata, and Calabria.

Southern Italy had never been united as one and so the Normans installed the feudal system of land ownership to establish order. Wealthy Norman overlords owned the land while using Calabrian peasants for all the work. This system lasted well into Italy's unification in the late 1800s and even beyond in the most remote areas. Many Calabrian villages were founded during Norman rule, including Badolato, in 1080.

Swabian, Aragonese, Spanish Rule

Frederick II of Swabia came into power in 1194 and is credited with creating one of the most civilized nations in the world that was also a great melting pot of cultures, philosophy, and customs.

Southern Italians, however, were not pleased with the heavy taxation and military burdens and the start of an internal rage with the powers-that-be began, or at least was expanded.

Upon Frederick II's death in 1250, a struggle for power resulted with Charles d'Anjou, of the Angevin (French) dynasty, emerging as an iron-fisted leader in 1266 and was granted the crown from Pope Clement IV. Although Charles lost Sicily in 1282, he retained control of the other southern Italian holdings (including Calabria), which came to be known as the "Kingdom of Naples."

The Angevin dynasty ruled the Kingdom of Naples until 1442, when it fell to Alfonso V of Aragon (Spain), who became ruler of the now-named "Kingdom of the Two Sicilies." When the Angevin claim became an issue for the French crown, the Italian Wars began in 1495. The treaties of Blois gave Naples and Sicily to Spain. This began one of the most harsh, brutal periods of Calabrian history.

The area suffered greatly under Spanish rule with heavy taxation, underutilized farming land because of feuding landowners, famines, and disease. While the north of Italy was experiencing the great Italian Renaissance, Calabria was sheltered in the fields.

Although the Renaissance didn't make the journey south, the Spanish Inquisition did. In 1560, the village of Guardia Piemontese in the province of Cosenza, Calabria was the site of a massacre of Protestants, who had fled from the Alps, known as Waldensians. The event is commemorated in the Piazza della Strage (Square of the Slaughter) and by the name of the 14th century Porta del Sangue (Gate of Blood), through which the blood of rebels reportedly flowed to the valley below.

Austrians, Bourbons, French, & Bourbons Again

In the early 1700s, the Austrian Hapsburgs came into control, but their rule was short-lived. In 1735, they ceded the Kingdom of the Two Sicilies to the Bourbons.

In 1759, Ferdinand IV of Naples became king and ruled with heavy military occupation and repression. He controlled political uprisings by killing many of the Calabrian dissenters.

At the end of the 18th century, the French invaded Italy and in 1802, Napoleon Bonaparte became President of the Italian Republic. A few years later, he declared himself king. The Kingdom of the Two Sicilies became independent with his brother Joseph as its king.

When Joseph left to assume the Spanish throne in 1808, Napoleon gave the Kingdom of Naples to his brother-in-law Joachim Murat. Murat instituted the French Civil Code and went to work on public infrastructure. Reforms were undone when the Bourbons returned with the help of the British in 1815. Murat was out, and when he tried to reclaim his throne, he was captured in Pizzo, held prisoner in the grand castle, and shot in the courtyard.

During the rule of the Bourbons, Calabrians became increasingly disgruntled and staged several insurrections which were met with responses of executions or life imprisonment.

They began to band together to form secret societies with laws enforced by brigands and bandits which were the loose precursor to organized crime.

As some groups became more organized, they joined a larger movement that called for "Italy, one free, independent republican nation," espoused by Giuseppe Mazzini and Nicholas Giuseppe Garibaldi, who would forever change the history of Italy.

Risorgimento, Emigration, & World Wars

In 1860, in a movement called "Il Risorgimento" or the revival, Garibaldi and his band of "Red Shirts" conquered Sicily and then the rest of southern Italy with the goal of unifying Italy under the Sardinian House of Savoy.

In 1861, the Kingdom of Italy was proclaimed under King Vittorio Emanuele II and the first elections of Italy's parliament took place in Turin, its first capital. The capital was moved to Florence in 1865 and then to Rome in 1870.

Vittorio Emanuele II died in 1878 and Umberto I rose to the throne. Meanwhile, life for southern Italians remained much the same as it always had. There was lots of hard work and little to show for it. The feudal system was still largely practiced in the south, making it difficult for farmers to have their own land.

Leaving their homeland and starting somewhere else seemed to be the only choice for many southern Italians. Around 1892, a mass emigration from Italy began.

By 1924, five million Italians had left the country reducing its population by a third, of which about 80 percent of these emigrants were from the southern provinces. They went to the United States, Canada, Argentina, Australia, Brazil, and elsewhere in Europe.

In 1900, Umberto I was assassinated and Vittorio Emanuele II became king. Fifteen years later, Italy entered World War I on the side of the Allies, but the unsettled post-war atmosphere helped the rise of the fascism. Benito Mussolini was elected to Parliament in 1921 and then was appointed Prime Minister of Italy by Vittorio Emanuele II in 1925. Three years later, the fascist leader called "Il Duce" dissolved Parliament and created a dictatorship with him at the helm.

During the time of fascism, the poor continued to struggle, and Mussolini's alignment with Hitler and Germany and the country's entry into World War II against France and Great Britain in 1940 didn't help matters. A series of rebellions by the people ensued and Italy surrendered to the Allies in 1943. Mussolini was captured and killed in 1945.

In a historic vote in 1946, Italians voted to abolish the monarchy, exile the royal family of Savoy because of its support for fascism, and establish a republic. With the adoption of a constitution in 1948, Italy became the parliamentary republic that it is today.

The economic conditions of the south continued to lag behind those of its northern counterpart, and so another wave of Italians left in search of work elsewhere. In the 1960s, the entire Italian economy improved, including the south primarily with help from funds of the Cassa per il Mezzogiorno.

Although Calabria still struggles for economic and social respect, there is a feeling that this unique region is coming into her own this time with dramatic increases in exports and in tourism.

With a combination of courage, determination, the ever-present love for family, the Calabresi have withstood thousands of years of oppression, struggle, and hardship. And they show no signs of stopping now.

Ancestral Village

Pietrafitta, Cosenza, Calabria, Italy

Calabria is the southern most region of mainland Italy. There are five provinces in Calabria of which Cosenza forms the northern border. And Pietrafitta is a town in the province of Cosenza.

The town itself is 2,296 ft. above sea level while the municipal territory ranges from 1,174 ft. to 4,435 ft. above sea level. The town covers 3.6 sq. miles and is located 2.3 miles from Cosenza, the main town in the province. The municipality also includes the villages of Campitello and Monte. According the italia.indettaglia website, on January 1, 2016 the population was 1,310 people, 647 males and 663 females. Ten people were less than one year old with two people over 100 years old.

Regional History and Legends

Cosenza province has a rich history dating from before the first Greek settlements in the area. The town of Cosenza was the capital of the Bruttii people before it came under the influence of the Greeks. An ancient legend exits dating back to 410 about the Visigoth's King Alaric. The legend states that once King Alaric conquered Rome, he headed south conquering and amassing treasures. Once he reached the heart of Cosenza, where the Crati river and the Bucenta river met, he died suddenly. It is said that his soldiers, with the help of slaves, buried the King under the river along with his horse and all the treasure. They redirected the river long enough to build the tomb. The soldiers then killed all the slaves so no one would know where the treasure was located.

Historically, for centuries after the fall of the Western Roman Empire, several towns in Cosenza province held out and refused to acknowledge new governments and became the last strongholds of the Roman Empire in Italy. That is until they faced the invasion of the Lombards. Then, from the invasion of the Normans to the Spanish conquest, the historical time-line of the Calabrian region follows that of Sicily. Under the Spanish, the town of Cosenza saw a period of expansion as the home of the Spanish Viceroy of Calabria. However there still was internal strife and unrest. In Pietrafitta, the revolts were finally put down in 1553 by the viceroy who hanged eighteen people in the public square and cut in half another sixteen. These events could have been the forerunner of what would become known as banditry some 300 years in the future. Many of those latter rebels were also from Pietrafitta.

In the early 19th century, Cosenza fought hard against the Bourbon invasion. In the following years, the rebel brigand bands became more organized and when the French invaded, they conducted bloody raids against the troops. There were severe causalities on both sides. The skirmishes continued after the French occupation until the unification of Italy.

Language

The official language of Calabria has been standard Italian since 1861 but Calabrian dialects have been spoken in the area for centuries. There have been many discussions as to whether Calabrese is a dialect of Italian or an Italian dialect, that is a dialect of Italy descending from Latin. Whichever, the dialects can be divided into two different groups. In the northern one-third of Calabria, the dialects are grouped with the Neapolitan dialect. And in the southern two-thirds they are grouped with the Sicilian dialect. They all however were influenced by the Greek, French, Albanian, and Spanish languages.

Another Perspective

While a historical view provides a timeline and insight into the political, cultural, and economic conditions defining our ancestors, there is one more perspective to consider. And that is actually my extended family tree. My extended family tree includes husbands, wives, and children along with their families and also partial family lineage of their spouses. While this isn't as comprehensive as only my direct family line, it does provide some interesting statistics.

This approach should not be compared to any national statistics. Those results are based on a group of people at any given point in time. The family tree represents individuals and families over centuries and thus provide insight into the changing social and economic conditions.

Demographics

The extended family includes 12,031 individuals of which there are 6,284 males and 5,747 females, that is 52% male and 48% female. This isn't surprising since the male ancestry is easier to trace. However the average age at marriage was higher than expected as seen in the following table.

Age at Marriage	Male	Female
Average	28.29	24.68
Minimum	15.00	14.00
# of Individuals	1.00	4.00
Maximum (subsequent)	83.00	70.00
# of individuals	1.00	1.00

While ages were found to vary from record to record, birth certificates were required for civil marriages. And since the civil records were the source of the majority of marriages, age statistics should be considered reliable. The minimum marriage age was anticipated especially if the early families arranged marriages for their teenage daughters. In fact there were sixteen marriages for daughters at the age of fifteen.

In total there are 8,686 married individuals of which 4360 are males and 4326 are females. The difference lying in the fact that, while there may be children in a family, not all wives' names could be found, especially in some early civil records. There also is an overall average number of marriages per person of 1.03 with a maximum of three for males and four for females. Thus supporting the maximum age at the time of marriage. In fact there were eight subsequent marriages where one spouse was greater then 68 years old.

Age at Marriage	# Male	# Female
69	1.00	1.00
70-73	4.00	1.00
83	1.00	0.00

The overall average age at death was 57.35 years (55.74 males and 59.21 females). This is out of a total of 4376 individuals with a recorded birth and death date (2341 males and

2035 females). The overall average death age may be misleading due to the high infant and child mortality for the early generations. The families tended to be larger but the survival rate of children into adulthood was low. In fact, the low average death rate confirms the findings on subsequent marriages. In many situations when a spouse passed away leaving several small children, the surviving spouse quickly remarried. And in several cases the marriage was to another sibling of the deceased spouse. Subsequent marriages later in life may have been more for companionship and to keep a household routine.

As time progressed along with socioeconomic conditions, countering the early families infant and child mortality rate and probably raising the overall average death rate, were those individuals surviving at least 98 years. There are a total of 32 individuals in the extended family tree! That is 0.73% of total individuals with a recorded birth and death date. This group of individuals deserve to be singled out and listed below.

Person	Birth	Death	Parents	Spouse
GIUSEPPE BERENATO	8/9/1886 Gesso	10/25/1984 (98) Hammonton	ANTONIO Maria Ciatto	Maria Cessato
ANGELINA BERTINO	7/8/1921 Hammonton	4/16/2020 (98) Abington, Pa	Antonio CONCETTA BERENATO	George Adams
Cornelia Cavalieri	2/17/1912 Scranton, Pa	11/2/2014 (102) Ocala, Florida		WILLIAM PAGANO
CONCETTA CELESTI	4/11/1863 Gesso	1962 (99) New Jersey	FRANCESCO Rosa Campanella	Placido Campanella
MICHELINA DeROSE	1/23/1923 Michigan	4/26/2003 (99)	John AMELIA SCARCELLI	
Theresa DePalma	1920	1/19/2019 (99) Galloway Twp, NJ		SANTO SILIGATO
Mary J DiLullo	6/24/1916 Vestaburg, Pa	12/14/2015 (99) Waterford Works, NJ		Peter Amendolia
Mary Errera	1894 New Jersey	1997 (103)	Giuseppe Rosa Bruno	Francesco S Giacobbe
Paul J Francks	1/20/1998 Italy/Germany	9/12/1992 (99) New Jersey		ANTONIA INGEMI
MARY J INFERRERA	1923 New Jersey	6/21/2021 (98) Hammonton	PIETRO Giovanna Curcio	Louis J Baglivio
THERESA J INFERRERA	3/21/1922	8/31/2020 Hammonton	PLACIDO Maria Anastasi	Joseph Rodio
Marie Jarolle	1896 Gesso	1995 (99) Hammonton		Salvatore (Bill) Scaffidi
GIOVANNA LOMBARDO	2/7/1889 Italy	7/8/1987 (98) Atlantic City,NJ	ANTONINO Annunciata Torsa	Nunzio Marchese
Vincenzo James Mascola	2/11/1894 Italy	1/11/1993 (98) Hammonton		Ida Brita
Antonia Mortelliti	6/29/1921 Massachusetts	4/19/2021 (99) Jupiter, Florida	Francesco Maria Curreri	VALENTINO GIORGIANNI

Person	Birth	Death	Parents	Spouse
FRANCES OLIVO	9/1/1904 New Jersey	11/16/2006 (102) Berlin, NJ	Joseph ROSARIA NASSO	George Tiberino
Angela Ordile	12/1892 New Jersey	1990 (98) Hammonton	Matteo Maria Vaccarella	Anthony Cannata
ANNA ORDILLE	1912 New Jersey	9/13/2017 (105) Scituate, Mass	GIOVANNI BATTISTE Santa D'Agostino	William Janetty
SALVATORE (Bill) ORDILLE	8/27/1911 Hammonton	6/14/2011 (99) Pomona, NJ	FRANCESCO CATERINA DePIETRO	Maria (Mary) Manera
JOSEPHINE PINTO	2/24/1918 New Jersey	3/7/2017 (99)	Joseph THERESA ELIZABETH ORDILLE	
Rose Pitale	8/27/1911 Philadelphia	5/11/2012 (100) Livonia, Missouri	Placido Maria Puleo	Louis DiGennaro
FRED QUINTIER	4/22/1905 Thomas,WVa	2003 (98) West Virginia	Giovanni THERESA TARSITANO	Versa Margaret Hall
GENEVA C RAFFA	9/1919 New Jersey	6/27/2019 (99) Hammonton	Giovanni FRANCESCA SACCO	Michael Ruberton
Anne Ranere	3/24/1915 New Jersey	8/15/2015 (100)		Milton Watson ANTHONY J CAPELLA
Santa Ruggeri	10/27/1890 Gesso	1991 (101) Hammonton	Francesco Angela Anastasi	Thomas Angelo Cessato
CONCETTA SACCO	5/2/1922 Hammonton	4/15/2021 (98) Hammonton	Joseph ROSA BERENATO	Carmen Mazzagatti
Ann Scaltrito	4/6/1907 Hammonton	7/11/2006 (99) Hammonton	Antonio Catherine Berenato	JOSEPH F ROMEO
Dorothy Strippoli	7/21/1911 Bari, Italy	3/14/2011 (99) Washington Twp,NJ		James Paul Ordille
HELEN TASSITINO	7/4/1921 Ury, WVa	2022 (101) Sterling, Va	GIOVANNI ROSALIA QUINTIERI	Lonnie L Cooper -- Dulaney
ROSE TOMASELLO	1/16/1917	4/21/2015 (98) Hammonton	Joseph G MARY E ERRERA	Vincent DeLuca
Mary Trolio	1900	1/29/2002 (102) Philadelphia, Pa		PHILLIP NOTTO
JENNIE C VALENTI	May 1917 Hammonton	1/11/2018 (101) Hammonton	Giovanni MINNIE BERENATO	John Anthony

In the above table, immediate family is shown in all capitals. Also note that included in the list is my father, William (Bill) Ordille.

Surnames

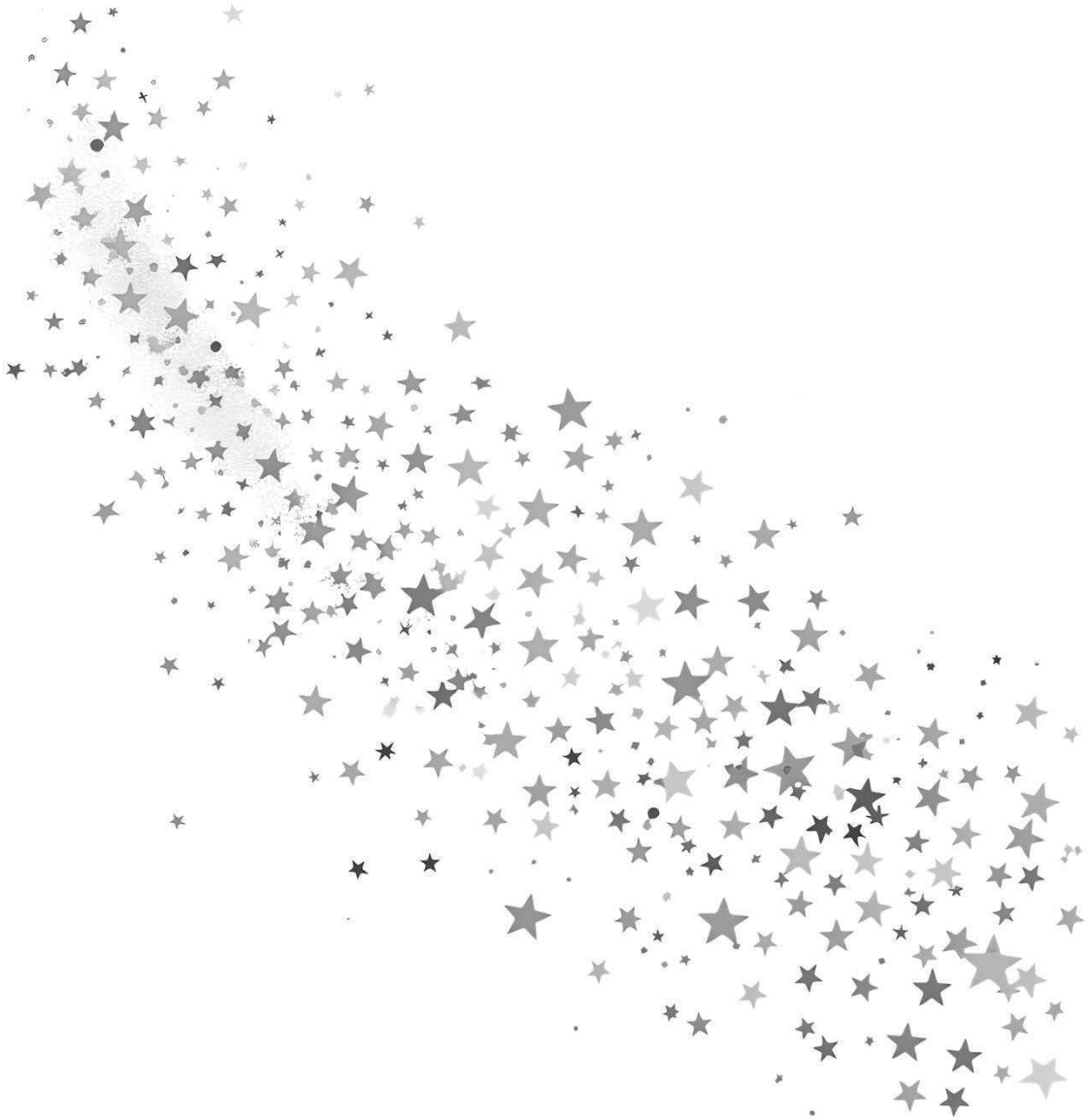
The top twelve surnames, including any variations, in my extended family tree are shown in the table below. I've also included the Giacoppo family with variations Giacobbe, Giacobbo, Giacoppe, and Jacobs whose total frequency is 190 individuals.

There are 11,543 individuals with known surnames. For the later generations especially in the US, it became more difficult to uncover a wife's surname. These thirteen surnames represent at least a third of the total surname data base.

	Surname	Frequency of Occurrence	Male	Female
1	Biafore	469	259	210
2	Berenato	457	224	233
	Berenotto	34	25	9
	Berinato	8	5	3
	Bernato	6	5	1
3	Ordile	389	210	179
	Ordille	257	140	117
4	Manera	334	185	149
	Manero	22	10	12
	Mannera	8	4	4
	Maneri	1	0	1
5	Tomasello	310	160	150
	Tomasella	3	2	1
6	D'Agostino	221	119	102
	Agostino	9	4	5
7	Pagano	204	118	86
8	Tarsitano	174	106	68
	Tassitino	27	11	16
9	Ingemi	172	96	76
	Angemi	50	22	28
10	Campanella	154	78	76
11	Macri	138	70	68
	Macrie	1	1	0
12	Capilli	117	67	50
	Capille	45	29	16
	Capella	39	21	18
	Capelli	30	18	12
13	Giacoppo	79	42	37
	Giacobbe	82	46	36
	Giacobbo	2	2	0
	Giacoppe	1	0	1
	Jacobs	26	16	10
		3869	2095	1774

Ancestral data is dependent on available records and also knowing where to find them. Therefore it is difficult to attach any significance to these findings. It is interesting to note the recorded surname variations among these thirteen families which as stated previously may be due to geography, changes over time and/or other socioeconomic factors.

The true evolution of a given surname or even all its variations may never be known. But that doesn't keep one from wondering what they may have missed……. and coming full circle to looking forward to what is yet to come!



Epilogue

A future yet unseen, a canvas white and vast,
Where dreams take flight and moments hold their cast.
A tapestry of hope, a winding, unknown road,
With whispers of adventure, a precious, shifting load.

With anticipation, a dance with what is near,
And a gentle promise of happiness to hold so dear.
The unwritten script, a story yet to bloom,
A symphony of chances, escaping every room.

Embrace the unknown, with open heart and soul,
A journey of discovery, to make us all whole.
The best is yet to come, the future's gentle call,
With every breath we take, a victory for all.

EASTERN HEMISPHERE, or THE OLD WORLD
NORTHERN ICY SEAS
ASIA
AFRICA
EASTERN SEA
INDIAN SEA
ETHIOPIC OCEAN
INDIAN OCEAN
NEW HOLLAND or TERRA AUSTRALIS
SOUTH PACIFIC OCEAN
SOUTHERN ICY OCEAN
The ANALEMMA
The VICISSITUDE of SEASONS Explained